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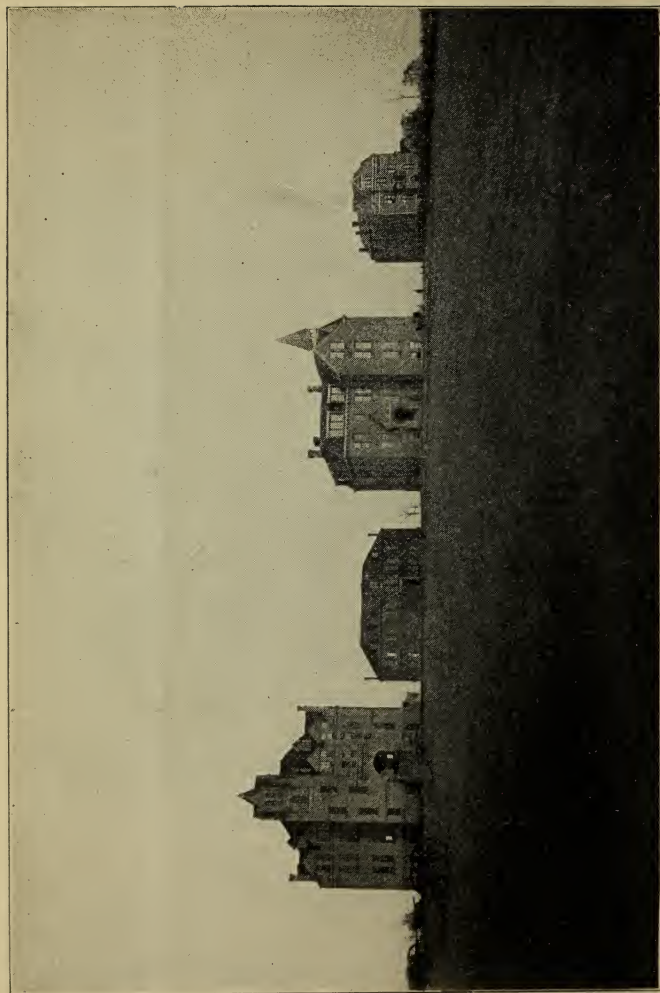
South Dakota
Agricultural College.



1. *Officers and Students.*
2. *General Information.*
3. *Description of Work Offered.*

Annual Catalog.
1898-1899.

*Published by the College,
Brookings, S. D.,
July, 1899.*



VIEW OF CAMPUS.

South Dakota
Agricultural College.

Annual Catalog.

1898-1899.

With Announcements for 1899-1900.

*Published by the College,
Brookings, S. D., July, 1899.
Press Print.*

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General Information.

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Part III.

Description of Departments and Work. Calendar and Schedule.

- | | |
|-------------------------------|---------------------------------------|
| Ae-Arct'land Agl.Engineering. | H-P. History, Economics & Philosophy. |
| Ar-Art. | Ln-Languages (foreign.) |
| Ag-Agriculture. | Ms-Mathematics. |
| Dy-Dairying. | Mt-Military. |
| Bt-Botany. | Mu-Music & Physical Culture. |
| Ch-Chemistry. | Me-Mechanical and Steam Engineering. |
| Ex-Experiment Station. | Py-Pharmacy. |
| Cl-Commercial. | Ph-Physics & Electrical Engineering. |
| Ds-Domestic Science. | Pr-Preparatory. |
| Eh-English. | Zo-Zoology & Veterinary Med. |
| E-Economics. | |
| Gl-Geology and Agronomy. | |
| Ho-Horticulture. | |

Regents of Education.

HON. H. H. BLAIR.....	Elk Point.
HON. ROBERT W. HAIRE	Aberdeen.
HON. M. F. GREELEY.....	Gary.
HON. L. M. HOUGH.....	Sturgis.
HON. F. A. SPAFFORD.....	Flandreau.

Officers.

President—Hon. H. H. Blair.

Secretary—Hon. M. F. Greeley.

Treasurer—Hon. John Schamber. (State Treasurer.)

HON. F. A. SPAFFORD, Regent Committee for the College.

MR. A. M. ALLEN, Secretary and Accountant of the College, Brookings, S. D.

Faculty and Instructors.

In Alphabetical Order after Executive Officers.

JOHN WILLIAM HESTON, Ph. D., LL. D., *President,*
Professor of History and Economics.

GEORGE LINCOLN BROWN, M. S., *Secretary,*
Professor of Mathematics and Astronomy.

LUCY AMELIA DUBOIS, A. B.,
Preceptress and Assistant in Languages.

FRANK GREGORY ORR,
Registrar and Assistant in Commercial Department.

ANNA ROWELL PARKER, B. S.,
Private Secretary to the President.

EDGAR ALBERT BURNETT, B. S.,
Professor of Animal Husbandry and Dairy Science.

ELLERY CHANNING CHILCOTT, M. S.,
Professor of Geology and Agronomy.

ARTHUR BOONE CROSIER,
Professor of Stenography and Commercial Branches.

ELMER KENDALL EYERLY, A. M.,
Professor of English Language and Literature.

ISABELLA RUSSELL FRISBIE, B. S.,
Professor of Domestic Science.

NIELS EBBESEN HANSEN, M. S.,
Professor of Horticulture and Forestry.

ROBERT FLOYD KERR, A. M.,
Librarian and Principal of Preparatory Department.

HUBERT BERTON MATHEWS, M. S.,
Professor of Physics and Electrical Engineering.

EDWARD LOCKHART MOORE, B. S., D. V. S.,
Professor of Zoology and Veterinary Medicine.

EDITH LOUISE PRATT,
Professor of Music and Physical Culture.

ADDISON ROBERTS SAUNDERS, M. E.,
Professor of Architectural and Agricultural Engineering.

DE ALTON SAUNDERS, A. M.,
Professor of Botany and Entomology.

JAMES HENRY SHEPARD, B. S.,
Professor of Chemistry.

HALVOR CHRISTIAN SOLBERG, M. E.,
Professor of Mechanical and Steam Engineering.

JOHN HERSEY WHEELER, A. B.,
Professor of Modern Languages.

BOWER THOMAS WHITEHEAD, B. S. Ph. C.,
Professor of Pharmacy.

.....(not yet appointed.)
Professor of Military Science and Tactics.

.....(not yet appointed.)
Professor of Industrial Art.

AUSTIN BENJAMIN CRANE, B. S.,
Assistant in Mathematics.

MARTIN LUTHER HALEY,
Assistant in Dairy Science.

ALBERT SPENCER HARDING, M. A.,
Assistant in History and Economics.

ANDREW BOTTOLF HOLM, B. S.,
Assistant in Agronomy.

HARLEY HAYES HUSTED, B. S.,
Instructor in Violin Music and Mathematics.

WILLIAM HAW KNOX,
Assistant in Chemistry.

MINNIE McNAMEE,
Assistant in Music and Physical Culture.

WALTER STRICKLAND THORNER, M. S.,
Assistant in Horticulture and Botany.
HOWARD HARTMAN HOY, B. S.,
Assistant in Mechanical Engineering.
STACY AUGUSTUS COCHRANE,
Director Farmers' Institutes.

Other Regular Employees.

MRS. T. G. ORR, *Matron of Girls' Cottage.*
MARCUS JOHNSON, *Engineer and Fireman.*
LEWIS W. CARTER, B. S., *Sup't. Mellette Exper. Station.*
CLAUDE LAWRENCE, B. S., *Supt. Highmore Station.*
MABEL LADIEU, *Assistant Librarian.*
LILLIAN LANGDON, *Stenographer Experiment Station.*
GEORGE E. PURDY, *Janitor.*
CHARLES HACK, *Night Watchman and Mail Carrier.*
WILLIAM WEST, *Foreman of Experiment Farm.*
WILLIAM HARTUNG, *Foreman College Farm.*
CHARLES HAROLDSON, *Gardener.*
WILLIAM THORNER, B. S., *Herdsmen.*

Tutors For 1899-1900.

ENGLISH—Callie Williams, L. V. Brown.

MATHEMATICS—Mattison H. Doughty, J. W. H. DeLa.

HISTORY—Alice Mathews.

PHYSICS—Ralph Towne.

BOTANY—Wm. Lawrence, Walter Thornber.

ZOOLOGY—Earl Else.

COMMERCIAL—O. V. Lamb, John Nelson.

ART—Mabel Ladieu, Edith Brace.

DOMESTIC SCIENCE—Gustava Olsen.

MECH. ENGINEERING—Mr. Hoy, Frank Grove.

PHARMACY—C. D. Kendall, Frank Hepner.

LANGUAGES, (foreign)—J. J. Brosseau, R. F. Harza.

AGRICULTURE—C. L. Hedger.

HORTICULTURE—John Hatton.

GEOLOGY—M. E. Culhane.

MUSIC & PHYSICAL CULTURE—Miss McNameee, Ruth
Youngman.

ECONOMICS AND PHILOSOPHY—Mr. Harding, M. E.
Fleming.

ARCHITECTURAL AND AG. ENGINEERING—Theo Mork.

CHEMISTRY—Mr. Knox, Robert Jones.

PREPARATORY STUDIES—Sara Davies.

Students absent from regular class exercises will be expected to arrange with a tutor for making up omitted work.

Graduates.

Name.	Class. Degree.	Occupation.	Address.
Ainsworth, Flora L.	'98 B. S.	Teacher,	Brookings
Ainsworth, Cephas B.	'97 B. S.	Bank Clerk,	Estelline
Ainsworth, Howard	'98 B. S.	Soldier,	Phillipine Islands
*Aldrich, Ellen (Roe)	'89 B. S.		
Aldrich, Irwin D.	'91 B. S.	Teacher,	Milbank
Aldrich, John M.	'88 B. S.	Prof. Univ. Idaho	Mosco, Io
Allen, Wm. C.	'89 B. S.	Physician,	Chicago, Ill
Allison, Wm. F.	'95 B. S.	Maj. U. S. A.,	Phil. Islands
Atkinson, Jesse C.	'96 B. S.	Carpenter,	Brookings
Atkinson, George W.	'97 B. S.	Agent,	White
Atkinson, Walter	'97 B. S.	Draughtsman,	Chicago, Ill
Austin, Steven E.	'92 B. S.	Machinist,	Omaha, Neb
Bates, Edmund T.	'93 B. S.	Farmer,	Onslow, Ia.
Barton, Alice E.	'96 B. S.	Teacher,	White
Bacon, Nora (Updyke)	'91 B. S.	Housewife,	Chicago, Ill.
Beck, Milton	'93 B. S.	Inventor,	Toronto, Canada
Beck, Louis	'98 B. S.	Mechanic,	Deadwood
Bell, Wm. D.	'91 B. S.	Editor,	Slayton, Minn
Bentley, Wm. S.	'91 B. S.	Physician,	Gary
Bolles, Myrick N.	'98 B. S.	Instructor,	Rapid City
Boswell, Kate L.	'89 B. S.	Teacher,	Estelline
Boyden, Frank E.	'97 B. S.	Supt. of Schools,	Brookings
Brown, Cyrus O.	'94 B. S.	Attorney,	Tingley, Ia.
Brown, Ida (Dibble)	'96 B. S.	Housewife	Lincoln, Neb.
Brown, James A,	'94 M. S.	Student,	Lincoln, Neb.
Brown, Sara	'95 B. S.	Teacher,	Shannon City, Ia.
Brooke, Grace (Lawshe)	'89 B. S.	Housewife,	Brookings
Carter, Lewis W.	'96 B. S.	Assistant,	Mellette
Chamberlain, Sarah B.	'91 B. S.	Nurse,	Chicago, Ill.
Chilcott, E. C.	'98 M. S.	Instructor,	Brookings
*Deceased.			

OFFICERS AND STUDENTS.

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Name.	Class.	Degree.	Occupation.	Address.
Clevenger, John W.	'97	B. S.	Dentist,	Chamberlain
Cornell, Harry M.	'95	B. S.	B'nk Cl'k,	Lake Benton Minn
Crane, Austin B.	'91	B. S.	Instructor,	Brookings
Crane, May (Cranston)	'89	B. S.	Housewife,	Brookings
Cross, Alvah G.	'89	B. S.	Traveling Salesman,	Huron
Crowley, C. (Madden)	'97	B. S.	Housewife,	Marshall, Minn.
Cunningham, Sarah (Haber)	'89	B. S.	Housewife,	Spokane, Wash.
Curtis Elsie E.	'98	B. S.	Teacher,	Iroquois
Davidson, Margaret D.	'98	B. S.	Teacher,	Thorton, Texas
Davis, Homer	'91	B. S.	Student,	Omaha, Neb.
Davis, Samuel H.	'92	B. S.	Farmer,	Plankinton
Day, John M.	'90	B. S.	Farmer,	Grand Bay, Ala.
Dillon, Willis C.	'91	B. S.	Attorney,	Redfield
Downing, Jennie C.	'96	B. S.	Teacher,	Brookings
Dibble, Hattie (Doughty)	'91	B. S.	Housewife,	Arlington
Edgerton, Wm. M.	'93	B. S.	Physician,	Faulkton
Egeberg, Hildus	'90	B. S.	Farmer,	Brookings
Eno, Durrell D.	'89	B. S.	Machinist,	Mount Vernon
Fjerstad, Hans C.	'98	B. S.	Teacher,	Aurora
Fourt, Fanny (Shannon)	'91	B. S.	Housewife,	Fairfield, Ia.
Frick, Mary A.	'91	B. S.	Stenographer,	Winona, Min.
Grady, Francis A.	'89	B. S.	Attorney,	Parkston, Minn.
Griffiths, David	'92	B. S.	Teacher,	N. Y. City, N. Y.
Grattan, Paul H.	'96	B. S.	Collector,	Elkton
Haasrud, Ole H.	'90	B. S.	Teacher,	Bratsburg
Hamlin, jr. John R.	'92	B. S.	Photographer,	Casselton, ND
Hann, J. B.	'91	B. S.	Teacher,	Pierre
Harding, Albert S.	'92	B. S.	Instructor,	Brookings
Harding, Neva (Whaley)	'98	B. S.	Housewife,	Brookings

Name.	Class.	Degree.	Occupation.	Address.
Harding, Chas. J.	'98	B. S.	Teacher,	Brookings
Hargis, Christie E.	'97	B. S.	Student,	Des Moines, Ia
Harkins, Lilla A.	'90	B. S.	Instructor,	Bozeman, Mont.
Hatfield, Ira N.	'92	B. S.	Attorney,	Lincoln, Neb.
Hazel, Wm. A.	'97	B. S.	Lieut. U. S. A.	Phil. Islands
Hegeman, Harry A.	'96	B. S.	Capt. U. S. A.	Phil. Islands
Hegeman, Maude E.	'98	B. S.	Music Teacher,	Brookings
Hegeman, Mabel I.	'98	B. S.	Teacher,	Brookings
Holm, Andrew B.	'96	B. S.	Assistant,	Brookings
Hopkins, Mrs. C. G.	'94	B. S.	Housewife,	Campaign, Ill
Hopkins, Cyril G.	'90	B. S.	Chemist,	Campaign, Ill
Hodgeson, Herbert H.	'98	B. S.	Civil Engineer,	Deadwood
Hoy, Howard H.	'96	B. S.	Teacher,	Huron
Husted, Harley H.	'97	B. S.	Instructor,	Brookings
Irish, Henry C.	'91	B. S.	Shaw Bot Gar,	St. Louis, Mo.
Irish, Maggie (Duffey)	'90	B. S.	Housewife,	St. Louis, Mo.
Jenkins, John C.	'90	B. S.	Attorney,	Brookings
Jolley, Wm. G.	'97	B. S.	Teacher,	Bristol
Kenyon, Arthur H.	'90	B. S.	Real Estate,	Spokane, Wash.
Keeney, Emma A.	'92	B. S.	Physician,	Sp'ng Valley Min.
Knox, Wm. H.	'98	B. S.	Assistant,	Brookings
Korstad, Hans	'89	B. S.	Editor,	Brookings
Korstad, Mary	'96	B. S.	Teacher,	Brookings
Lawrence, Claude W.	'98	B. S.	Assistant,	Mellette
Lawrence, Clay	'98	B. S.	Teacher,	Key Stone
Lawrence, Philip A.	'88	B. S.	Attorney,	Castlewood
Larson, Lars K.	'89	B. S.	Cashier,	Dell Rapids
Lewis, Perry	'91	B. S.	Tinner,	Mankato, Minn.
Luke, Fred K.	'94	B. S.	Bot. Florist	Columbus O.
Lusk, William C.	'96	B. S.	Editor,	Yankton
Madden, Margaret	'92	B. S.	Teacher,	Brookings
Mathews, Alta K.	'96	B. S.	Teacher,	Brookings
Mathews, Emma N.	'96	B. S.	Teacher,	Bushnell

Name.	Class. Degree.	Occupation.	Address.
Mathews, Eva (Plocker)	'92 M. S.	Prof. Art,	Brookings
Mathews, Hubert B.	'92 M. S.	Prof. Physics,	Brookings
Mayland, Mabel C.	'95 B. S.	Teacher,	Pierre
McAndrew, James E.	'92 B. S.		Iroquois
McKenney, Dustin W.	'89 M. S.	Dir Man Tr'ng,	Davenport, Ia
McLouth, Benjamin F.	'93 B. S.	Draughtsman,	Cleveland, O
McLouth, Ida B.	'92 B. S.	Instructor,	Janesville, Wis
McLouth, Lewis C.	'89 B. S.	Man Trn'g Dir,	Cleveland, O
Mork, Albert A.	'89 B. S.	Clerk,	Brookings
Oison, Eva L.	'97 B. S.	Teacher,	Bruce
Orcutt, Carrie (Ross)	'89 B. S.	Housewife,	Northfield, Minn.
Paddock, Jay M.	'98 B. S.	Teacher,	Sioux Falls
Parker, Anna R.	'95 B. S.	Stenographer,	Brookings
Parker, Fanny M.	'94 B. S.	Teacher,	Great Falls, Mont
Parsons, Thomas S.	'97 B. S.	Teacher,	Brookings
Pratt, Alice (Robinson)	'91 B. S.	Stenographer,	Gr. F'ls, Mont
Pyne, Estel W.	'90 B. S.	Music D'ler,	Santa Anna, Cal
Riemann, Edith F.	'98 B. S.	Teacher,	Rapid City
Robertson Ada N.	'93 B. S.	Clerk,	Helena, Mont
Robertson, Clarence H.	'93 B. S.	Instructor,	Lafayette, Ind
Robertson, Edith (Salisbury)	'95 B. S.	Housewife,	Lafayette, Ind
Rogers, Edmund	'90 B. S.		
Ross, Abbie E.	'89 B. S.	Missionary,	China
Roe, Guy W.	'90 B. S.	Manufacturer,	McIntyre, Ia
Roe, Robert	'97 B. S.	Real Estate,	Rochester, Minn
Sasse, Ernest G.	'96 B. S.	Physician,	Revillo
Saylor, Marcus A.	'86 B. S.	Real Estate,	Tacoma, Wash
Schlosser, Thos. F.	'92 B. S.	Clergyman,	Chicago, Ill
Schoppe, W. J. A.	'93 B. S.	Teacher,	Yankton
Sevy, Isaac B.	'95 B. S.	Clergyman,	Evanston, Ill
Shuster, John W.	'97 B. S.	Elect'l Engin'r,	Chicago, Ill
Sloan, Nettie	'92 B. S.	Dressmaker,	Brookings

Name.	Class.	Degree.	Occupation.	Address.
Solberg, Halvor C.	'91	B. S.	Prof. Mech. Eng.	Brookings
Sproul, Alex H.	'94	B. S.	Teacher,	Elgin, Ill
Sproul, Wm. T.	'95	B. S.	Draughtsman,	Rockford, Ill
Stoner, Minnie A.	'90	B. S.	Prof Dom Sci	Manhattan Kan
Tanzy, Hattie (Dibble)	'94	B. S.	Housewife,	Artesian
Tanzy, Marvin F.	'94	B. S.	Farmer,	Artesian
Thornber, John J.	'95	B. S.	Teacher,	Nebraska City, Neb
Thornber, Wm. T.	'98	B. S.	Asst. Herdsman,	Brookings
Thornber, Walter S.	'97	B. S.	Assistant,	Brookings
Towne, Addie (Loveland)	'98	B. S.	Housewife,	Aberdeen
Towne, Judson R.	'98	B. S.	Teacher,	Aberdeen
Valleau, Vinal B.	'91	B. S.	Stenographer,	Minneapolis
Walters, Wm. H.	'97	B. S.	Clerk,	Bruce
Wardall, Anna L.	'89	B. S.	Physician,	Topeka, Kan
Wardall, Norman M.	'90	B. S.	Bookkeeper,	Huron
Waters, George D.	'94	B. S.	Teacher,	Madison
Wellman, Lulah E.	'88	B. S.		Jamestown, N. Y.
West, Hugh H.	'91	B. S.	Student,	Chicago, Ill
West, Orpha K.	'97	B. S.	Teacher,	Richland C't'r, Wis
Whitehead, B. T.	'97	B. S.	Prof. Pharm.,	Brookings
Whitten, John C.	'92	B. S.	Prof. Hor.,	Columbia, Mo
Wilcox, Alice E.	'97	B. S.	Teacher,	Thawville, Ill
Wilcox, Ernest N.	'95	B. S.	Teacher,	Thawville, Ill
Williams, Effie (Snell)	'92	B. S.	Housewife,	Washington, D C
Williams, Elinor	'94	B. S.	Student,	Brookings
Williamson, Albert	'96	B. S.	Teacher,	Milbank
Winegar, Albert J.	'92	B. S.	Draughtsman,	Beloit, Wis
Wolgemuth, Lee E.	'91	B. S.	Mechanic,	St. Louis, Mo
Work, Lloyd E.	'97	B. S.	Student,	Fairfield, Ia
Young, Grace M.	'97	B. S.	Teacher,	Brookings
Young, Gilbert A.	'94	B. S.	Student,	Lafayette, Ind

Alumni Association.

HUBERT B. MATHEWS, '92, President.

MRS. GRACE BROOKE, '89, Vice-President.

LARS K. LARSON, '89 Second Vice-President.

ELSIE E. CURTIS, '98, Third Vice-President.

ALBERT S. HARDING, '92, Secretary and Treasurer.

Graduate Club.

ALBERT, S. HARDING, '92, President.

FRANK E. BOYDEN, '97, Vice-President.

MAUDE E. HEGEMAN, '98, Secretary and Treasurer.

List of Students.

Name.	Major.	Address.
Aaland, Marie	Cl.	Howard
Adams, Clarence A.	Cl.	Brookings
Akers, Thos. E.	Ph.	Mellette
Allen, Hart M.	Ln.	Watertown
Allen, Clara E.	Pr.	Parker
Allen, Joseph S.	Pr.	Parker
Allen, Edward P.	Eh.	Parker
Alrick, Ida	Pr.	Brookings
Almond, Fred C.	Me.	Clear Lake
Anderson, Clifton G.	Pr.	Brookings
Anderson, Clifford	Cl.	Bancroft
Anderson, Howard C.	Pr.	Brookings
Anderson, Clark W.	Ag.	Chamberlain
Anderson, Angel	Se.	Volin
Arneson, C. E.	Se.	Benclare
Arsenian, Arsen	Dy.	Cavour
Aslakson, Joseph B.	Cl.	Brookings
Atkinson, Albert	Pr.	White
Bagley, Susie	Ar.	Elkton
Baaberg, Ole N.	Se.	Togstad
Baldwin, Corwin B.	Py.	Olivet
Benedict, Irving J.	Eh.	Watertown
Beebe, Jay L.	Py.	Crystal Lake, Minn.
Benbow, Anna B.	Cl.	Brookings
Beck, Ida M.	Ar.	Miller
Bentley, George F.	Sp.	Bradley
Bentley, Mrs. G. F.	Sp.	Bradley
Begalka, Edward	Ms.	Estelline
Belden, Andrew	Se.	Groton
Binnewies, Wilfred G.	Pr.	McCurdy
Blakely, Herbert W.	Pr.	Brookings

Name.	Major.	Address.
Bliss, Frank L.	Pr.	Mellette
Bolles, Laura J.	Ho.	Coleman
Boyd, Mary	Ds.	Brookings
Bowman, Orbra S.	Cl.	Mellette
Bortness, Clara J.	Pr.	Bruce
Bortnem, Andrew	Cl.	Brookings
Borst, Glenn M.	Pr.	Aurora
Boyden, Alonzo M.	Pr.	Brookings
Brace, Edith M.	Ar.	Highmore
Brown, L. V.	Me.	Reynard, Mo.
Brosseau, J. E.	Py.	Bradley
Bruget, Fred	Pr.	Mission Hill
Burnett, Lyman C.	Ag.	Brookings
Bullen, Clare H.	Me.	Ashton
Bullis, Ira N.	Ag.	Brookings
Bursheim, Peter	Se.	Brookings
Budahl, Malla R.	Pr.	Deuel
Byrne, Mary	H. P.	Volga
Byrne, Agnes	Eh.	Volga
Campbell, Walter M.	Py.	Brookings
Carr, George H.	Py.	Flandreau
Carr, Fred A.	Pr.	Cherokee, Ia.
Carlson, Esther M.	Ds.	Erwin
Carlson, Ella	Ln.	Erwin
Carnine, Philip K.	Ag.	Brookings
Cheever, Edward	Sp.	Brookings
Christensen, Mark	Cl.	Oldham
Christiansen, Edward	Pr.	Albee
Christensen, Frank M.	Cl.	Oldham
Clevenger, Altha	Sp.	Brookings
Cline, Amy G.	Sp.	Holabird
Colegrove, Ina M.	Mu.	Brookings
Colegrove, Letta A.	Ds.	Brookings
Colegrove, Lotta	Eh.	Brookings
Cole, John S.	Ag.	Gary

Name.	Major.	Address.
Connell, John	Py.	Yankton
Cornell, Edward C.	Py.	Arlington
Crothers, Laura	Pr.	Hetland
Cranston, Royal	Ag.	Osakis, Minn.
Crowley, D. E.	Py.	Columbia
Croes, Howard W.	Pr.	Wessington
Cross, Anna A.	Pr.	Arlington
Cronyn, Herbert S.	Dy.	Aberdeen
Cuckow, Mattie A.	Ds.	Dell Rapids
Cuckow, Fred	Ag.	Dell Rapids
Curtis, Fred	Ae.	Worthing
Culhane, Michael E.	Me.	Elkton
Cummisky, Philip M.	Ae.	Piedmont
Daniels, Alice	Eh.	White
Davies, Sara I.	Ln.	Brookings
Davies, Mary E.	Ds.	Brookings
Davis, Harold L.	Cl.	Brookings
Davis, Clifford W.	Bt.	White
Dahl, James	Pr.	Estelline
Depeel, Theodore G.	Py.	Bradley
De La, Don E.	Zo.	Houghton
De La, Helmuth J. W. R.	Ms.	Houghton
Dillman, Raymond L.	Sp.	Reville
Doughty, M. H.	Ms.	White
Downing, Anna M.	Pr.	Brookings
Downing, Mary E.	Pr.	Brookings
Dodge, Fred E.	Ph.	Brookings
Duden, Fred	Cl.	Brookings
Dutcher, Paul	Sp.	Brookings
Early, Elizabeth	Pr.	Lake City, Minn.
Eckert, Henry	Py.	Menno
Ecklor, Maude	Pr.	Bushnell
Egeberg, Nora E.	Ds.	Brookings
Else, Earl J.	Py.	Doland

OFFICERS AND STUDENTS.

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Name.	Major.	Address.
Ellefson, Lewis	Pr.	Jasper, Minn.
Enos, Winnifred	Eh.	Brookings
Eneboe, Rudolph P.	Pr.	Canton
Eneboe, Ole P.	Pr.	Canton
Ennis, Herbert I.	Py.	Lebanon
Erbe, Chas.	Ag.	Bowdle
Erickson, Martin L.	Ln.	Flandreau
Erickson, Rudolph B.	Se.	Bruce
Erstad, Carl T.	Sp.	Brookings
Etting, Hattie M.	Ds.	Brookings
Evans, Lina F.	Ds.	Aurora
Evenson, Edward	Zo.	Volga
Evenson, John E.	Cl.	Toronto
Fassett, Glenn	Cl.	Brookings
Ferch, Henry R.	Se.	Cavalier, N. D.
Fishback, Myra B.	Eh.	Brookings
Findeis, Philip	Ag.	Miranda
Fjerestad, Chas.	Pr.	Toronto
Fleming, M. E.	Cl.	Bryant
Freng, John	Pr.	Volin
Fricke, Louisa H.	Pr.	Elkton
Freng, Christina	Pr.	Volin
Freng, Ole	Se.	Volin
Fry, William H.	Pr.	Dyce
Freed, Emel	Se.	Bruce
Gardner, Fred	Ag.	Piedmont
Gaskin, Frank	Cl.	Columbia
Gates, Oella M.	Mu.	Clear Lake
George, W. A.	Ch.	Gettysburg
Gentle, Ralph E.	Ln.	Brookings
Goodale, Alton R.	Ae.	Brookings
Grove, Frank W.	Ph.	Brookings
Griffin, Chas. A.	Pr.	Bangor
Griepentrog, August	Pr.	White

Name.	Major.	Address.
Graves, Gust	Se.	Jasper, Minn.
Gullikson, Martin	Pr.	Toronto
Gunn, Hugh D.	Se.	Henry
Hart, Bert M.	Ph.	Doland
Harza, Roy F.	Ph.	Brookings
Harza, Carl	Ph.	Brookings
Hardman, Susie	Pr.	Kasper
Hartwick, Jennie	Pr.	Brookings
Hartwick, Albert L.	Pr.	Brookings
Hartwick, Joe A.	Pr.	Brookings
Harding, Chas. J.	Ag.	Britton
Hatton, John H.	Ho.	Claremont
Hawley, Christ B.	Pr.	Toronto
Hatlestad, S. G.	Cl.	Estelline
Hanson, Thea	Pr.	Mission Hill
Hanson, Norman A.	Pr.	Brookings
Hanson, Hans O.	Pr.	Clear Lake
Hansen, Nettie M.	Pr.	Sherman
Hansen, Hattie	Pr.	Sherman
Harrington, Dudley	Cl.	Willow Lakes
Hannigan, Edward J.	Pr.	Jolley
Hannigan, Francis	Pr.	Henry
Haraldson, Bertha M.	Pr.	Bruce
Hedger, Chas. L.	Ag.	Burch
Heiser, Lydia	Cl.	Lockwood, Mo.
Hendricks, Leslie E.	Ch.	White
Hendricksen, Bertha	Pr.	Altamont
Hendricksen, Ada	Pr.	Bruce
Herbert, Fred S.	Se.	Garretson
Heston, Chas.	Me.	Brookings
Hepner, Frank E.	Py.	Brookings
Hetland, Clarence	Cl.	Oldham
Henry, Ethelyn L.	Pr.	Palmer
Hill, Hollis H.	Pr.	Willow Lakes
Hinsvark, Martin N.	Se.	Brandt

Name.	Major.	Address.
Hinseth, Henry	Ho.	Volin
Holliday, Alta V.	Eh.	Brookings
Hopkins, Carrie P.	Ds.	Estelline
Hopkins, J. W.	Se.	Blencoe, Ia.
Holstad, Almer	Se.	Deuel
Hoffman, Regina	Pr.	Bruce
Hoover, Franklin R.	Ae.	Bradley
Hoberg, Martin	Cl.	Lake Preston
Hoxeng, Hakon	Pr.	Volin
Hovey, Peter	Dy.	Bruce
Holm, Andrew B.	Sp.	Brookings
Hubbart, Minnie E.	Pr.	Brookings
Huntimer, Frank	Bt.	Dell Rapids
Hunsberger, Roy R.	Ch.	Columbia
Husted, Harley H.	Sp.	Brookings
Ihde, Henry C.	Me.	Warner
Irish, Emily A.	Eh.	Doland
Janke, Anna B.	Ds.	Brookings
Jarvis, Hall S.	Bt.	Faulton
Jacobson, Lillie B.	Cl.	Toronto
Jacobson, Elmer S.	Se.	Woonsocket
Jermstad, Edward I.	Ho.	Brookings
Jeffrey, George A.	Cl.	St. Lawrence
Jensen, Pauline	Pr.	Conde
Jensen, Lewis N.	Pr.	Conde
Jermstad, Alfred	Me.	Brookings
Jenks, Earl F.	Cl.	Louisberg, Minn.
Johnson, Edward	Ms.	Toronto.
Johnson, Isaac B.	Ph.	Brookings
Johnson, Clara T.	Ar.	Brookings
Johnson, Rhoda M.	Ds.	Brookings
Johnson, Ross H.	Ae.	Clear Lake
Johnson, Ludwig	Cl.	Brookings
Johnson, Aaron G.	Pr.	Bruce

Name.	Major.	Address.
Johnson, Gina	Cl.	Brookings
Johnston, Sam E.	Pr.	Henry
Jones, Robert H.	Py.	Madison
Kelly, Walter E.	Gl.	Dell Rapids
Kelley, John W.	Pr.	Jolley
Kelley, John F.	Se.	Brookings
Kendall, Clinton D.	Py.	Brookings
Kendall, Krete M.	Ds.	Brookings
Kendall, Leonard J.	Cl.	Brookings
Kennedy, C. LeRoy	Me.	Madison
Keyes, Marion	Se.	Mitchell
Kinney, Carl W.	Pr.	Estelline
Knox, Wm. H.	Sp.	Brookings
Knudson, Lewis	Se.	Sherman
Kremer, Pauline	Sp.	Brookings
Ladieu, Maybelle A.	Eh.	Brookings
Lake, Paul F.	Pr.	Burchard, Minn.
Langdon, Lillian	Sp.	Parker
Lamb, O. V.	Cl.	Worthing
Lawrence, Minerva M.	Ds.	Woonsocket
Lawrence, William H.	Bt.	Woonsocket
Lawrence, Jessie	Ds.	Woonsocket
La Brie, Anatole	Se.	Turton
Larson, Lewis	Se.	McCurdy
Larson, Nels	Pr.	Mission Hill
Landsvark, Peter H.	Se.	Arlington
Lee, Orrin E.	Py.	Dyce
Lewis, Albert W.	Cl.	Powell
Lindsey, Chas. F.	Py.	Lake Preston
Lindsey, George E.	Pr.	Lake Preston
Lindskog, Alice	Pr.	Bruce
Lincoln, Ralph W.	Cl.	Lake Preston
Lien, Edward	Pr.	Volin
Lien, John O.	Pr.	Volin

Name.	Major.	Address.
Liabo, Ole	Pr.	Volin
Lombard, Boyd H.	Se.	Aurora
Lombard, Perry D.	Cl.	Aurora
Loucks, Perry	Me.	Altruria
Loiden, Nellie	Pr.	Elkton
Lupient, Fred W.	Pr.	Warner
Lunden, Chas. H.	Se.	Lake Preston
Martin, Frank J.	Ch.	Chamberlain
Martin, Frank R.	Pr.	Doland
Martin, Jesse P.	Cl.	Vienna
Mason, Nellie	Mu.	Brookings
Mathews, Alice M.	Ds.	Willow Lakes
Mathews, Roscoe A.	Ph.	Willow Lakes
Markrud, Christ	Pr.	Lounsberry
Madden, Thomas C.	Cl.	Brookings
Martinson, Nels A.	Pr.	Brookings
Megard, Hans I.	Cl.	Deuel
Miller, Bert	Se.	De Voe
Mickelson, Irving	Pr.	Brookings
Miller, Paul E.	Pr.	Troy
Miner, Rio	Pr.	Sheffield, Ia.
Morehouse, Harry C.	Cl.	Brookings
Mork, Theodore O.	Ae.	Brookings
Morris, Ethel E.	Pr.	Brookings
Morris, Jennie	Pr.	Brookings
Morrison, Nellie J.	Mu.	DeSmet
Morrison, Freda	Eh.	DeSmet
Mower, Wm. A.	Ln.	Brookings
Moffatt, Margaret	Ds.	Brookings
Morgan, Maude	Cl.	Lily
Morrow, Jas. A.	Cl.	Spencer, Ia.
Molstad, Henry	Se.	Toronto
Morton, Frederick	Zo.	Toronto
Murphy, Nona G.	Cl.	Brookings
Murphy, Mark V.	Pr.	Fairfax

Name.	Major.	Address.
Munro, Stephen D.	Zo.	Gary
McCarty, George	Pr.	Cavour
McCurdy, Raymond H.	Dy.	Letcher
McClain, Louis H.	Cl.	Parkston
McElmurry, Loretta	Ds.	Brookings
McFarland J. R.	Pr.	Centerville
McNamee, John E.	Sp.	Brookings
McNamee, Margaret M.	Sp.	Brookings
Nachtigall, Isaac	Ag.	Marion
Nelson, Emelia	Eh.	Toronto
Nelson, John	Cl.	Dell Rapids
Nesta, Gustav	Pr.	Sioux Falls
Nielsen, Julian J.	Pr.	Mission Hill
Norton, George J.	Me.	Beresford
Noble, Alonzo	Dy.	Manchester
Noble, Arthur G.	Se.	Centerville
Norman, Even L.	Pr.	Togstad
O'Brien, Jerry	Pr.	Ree Heights
Odekirk, Chas. K.	Pr.	Arlington
Olson, Albert E.	Pr.	Dell Rapids
Olson, Anna M.	Cl.	Laurel
Olson, Gustava M.	Ds.	Colman
Olson, Isaac	Pr.	Brookings
Olson, Nels	Se.	Wilson
Olson, Jennie	Pr.	Brookings
Olson, Gilbert M.	Se.	Egge
Olsen, Bessie	Cl.	Brookings
Olsen, Fanny E.	Pr.	Sherman
Olsen, Chas. A.	Cl.	Sherman
Olsen, John	Se.	Sherman
Otterness, Jens M.	Ae.	Brookings
Oulton, Frank A.	Py.	Ashton
Palmer, Herbert L.	Pr.	Mellette
Parsley, Cora M.	Pr.	Beaver Creek, Minn.

Name.	Major.	Address.
Peterson, Will P.	Pr.	Deuel
Peirce, Elizabeth E.	Ds.	Brookings
Phillips, Florence H.	Ds.	Brookings
Phillips, Louise C.	Ds.	Brookings
Pierce, Berton	Se.	Beresford
Pickles, Chester E.	Pr.	Clark
Pohlmann, Henry W.	Ph.	Huffton
Pond, Hoyt A.	Cl.	Brookings
Pond, Florence A.	Sp.	Brookings
Potter, Myrtle M.	Pr.	Bangor
Purdy, Wallace E.	Cl.	Brookings
Quickstad, John	Pr.	Toronto
Quickstad, Olaf N.	Pr.	Toronto
Quickstad, Edward P.	Pr.	Peterson, Minn.
Quam, Christine J.	Pr.	Spring Creek, Minn.
Ramsey, Henry	Me.	Brookings
Remster, Alva	Ag.	Woonsocket
Redman, Albert G.	Pr.	Reville
Reppe, John	Pr.	Brookings
Reynolds, John W.	Dy.	Plankinton
Rice, Emma N.	Pr.	Estelline
Ribstein, Blanche F.	Ds.	Bruce
Richardson, Chas.	Ho.	Burch
Roberts, Roy B.	Pr.	Yankton
Rottluff, Arthur J.	Ag.	Oldham
Roby, Lillie	Pr.	Brookings
Rymerson, Carl	Pr.	Estelline
Sanborn, Ethel I.	Mu.	Clear Lake
Sampson, Vendla	Sp.	Bruce
Sampson, John	Pr.	Bruce
Schultz, Jennie	Mu.	Aurora
Schultz, Emma A.	Mu.	Aurora
Seward, Chas. P.	Pr.	Watertown
Shelstad, Gilbert L.	Se.	Togstad
Sherwin, Howard H.	Ms.	Brookings

Name.	Major.	Address.
Sherwin, Ralph L.	Ph.	Brookings
Shaw, William B.	Ae.	Oldham
Shriver, Ernest M.	Py.	Dell Rapids
Simmons, Judson F.	Cl.	Parkston
Skinner, May E.	Sp.	Brookings
Skinner, Chas. H.	Pr.	Brookings
Skarloken, Belinda	Pr.	Argo
Sloan, John	Pr.	Brookings
Smith, Osmyn	Dy.	St. Lawrence
Smith, William	Ch.	Wilmot
Smith, Mabel E.	Mu.	Bangor
Smiley, Levi	Se.	Milbank
Soreng, Andrew O.	Se.	Dexter
Sperlich, Carl	Pr.	Hislede
Stermer, Laura H.	Cl.	White
Stermer, Lena	Pr.	White
Stolte, Herman	Pr.	Huron
Stokes Guy P.	Bt.	Flandreau
Stangeland, August	Se.	Dell Rapids
Sveen, Simon B.	Se.	Brookings
Sweeney, Edward	Pr.	De Smet
Taylor, Clifford D'Wolf	Py.	Columbia
Thornber, Mary E.	Ds.	Iroquois
Thornber, Albert	Ae.	Iroquois
Thornber, Adam P.	Ho.	Iroquois
Thornber, Walter S.	Sp.	Iroquois
Thorsness, Joseph A.	Se.	Oldham
Thompson, Elmo	Cl.	Parker
Thorgeson, Henry E.	Se.	Yankton
Thompson, Henry	Se.	Dell Rapids
Thomas, John	Gl.	Freeman
Thomas, Herbert D.	Zo.	Clear Lake
Thoveson, Arthur V.	Pr.	Clark
Thorud, Ole B.	Sp.	Sevenby, N. D.
Theiss, Henry	Pr.	Waubay

Name.	Major.	Address.
Theiss, William J.	Pr.	Waubay
Tidball, Austin C.	Py.	Brookings
Tiegen, Halvor	Pr.	Gem
Trooien, Ole N.	Ms.	Prairie Farm
Trythall, John	Pr.	Miller
Trygstad, Nils M.	Pr.	Brookings
Trygstad, Kasper O.	Pr.	Brookings
Tuck, George E.	Py.	Watertown
Walradth, Ruby A.	Ds.	Elkton
Walter, Erving L.	Gl.	Sherman
Walters, Edith A.	Mu.	Bruce
Walters, Daisy	Pr.	Bruce
Walpole, Robert E.	Cl.	Walshtown
Way, James G.	Pr.	Brookings
West, George H.	Zo.	Woonsocket
Westcott, George R.	Eh.	Goodwin
Wheeler, Mrs. W. H.	Sp.	Brookings
Wheaton, Louis A.	Pr.	Brookings
White, Robert	Cl.	Aurora
Whitlow, E. R.	Pr.	Madison
Williams, Emma	Mu.	Weeping Water, Neb.
Williams, Elinor	Gr.	Weeping Water, Neb.
Williams, Daisy E.	Ds.	Brookings
Williams, Harry A.	Bt.	Brookings
Williams, Josie	Ds.	Brookings
Williams, Callie T.	Eh.	Brookings
Williams, Edward	Sp.	Brookings
Winters, George W.	Cl.	Forest City
Winters, John W.	Cl.	Forest City
Wolf, Lewis E.	Pr.	Grover
Wood, Roscoe L.	Py.	Doland
Wolff, Edward	Se.	Ramona
Yager, Albert	Bt.	Wentworth
Youngman, Ruth	Ln.	Brookings
Youngberg, Mamie V.	Pr.	Volga

Military Roster.

A. B. HOLM, MAJOR 4TH BATTALION, S. D. N. G.,
Acting Commandant.

Commissioned Staff.

Wm. H. Lawrence,.....Major.
O. V. Lamb,.....Acting Adjutant.
John Hatton,.....Chaplain.

Non-Commissioned Staff.

Frank Hepner,.....Srgt. Major.
Geo. E. Tuck,.....Color Srgt.
H. H. Husted,.....Band Master.
L. E. Hendricks,.....Musician.

Infantry.

COMPANY A.

Captain,.....R. E. Gentle.
1st Lieutenant,.....O. V. Lamb.
2nd Lieutenant,.....John Hatton.
Srgts., Theo. Mork, Isaac Johnson, L. E. Norman.
Corpls., Earl Else, Louis Wolf, John Nelson, C. D. Kendall.

COMPANY B.

Captain,.....L. V. Brown.
1st Lieutenant,....C. LeRoy Kennedy.
2nd Lieutenant,.....S. E. Johnston,
Srgts., C. Baldwin, R. Cranston, J. Cole.
Corpls., Ole Trooen, S. G. Hattlestad, H. Eckhart.

Artillery.

BATTERY A.

Captain,.....R. E. Gentle.
1st Lieutenant,....C. LeRoy Kennedy.
1st Gunner,.....J. E. Brosseau.
2nd Gunner,.....Alva Remster.

Student Organizations.

Industrial Collegian.

Ray Dillman,.....Editor in Chief.
George H. West,.....Business Manager.

Athletic Board.

John H. Wheeler, De Alton Saunders,
A. M. Allen, J. L. Beebe.

Oratorical Association.

Ina Colegrove,.....President.
Nellie Mason,.....Secretary.

First Regiment Band.

Harley H. Husted,.....Leader.
Frank G. Orr,.....Manager.

Young Men's Christian Ass'n.

C. L. Hedger,.....President.
B. M. Hart,.....Secretary.
R. E. Gentle,.....Cor. Secretary.

Young Women's Christian Ass'n.

Callie Williams,.....President.
Mary Boyd,.....Secretary.
Jessie Lawrence,.....Cor. Secretary.

Athenian Literary Society.

L. V. Brown,.....President.
Mary Boyd,.....Secretary.

Miltonian Literary Society.

M. E. Culhane,.....President.
Alice Mathews,.....Secretary.

Eclectic Literary Society.

George West,.....President.
Sara Davies,.....Secretary.

Franklin Literary Society.

E. P. Leonard,.....President.
Nettie Hanson,.....Secretary.

Part Two.

A--General Information.

1. **ESTABLISHMENT.**—An act of Congress approved July 2nd, 1863, gave to each state 30,000 acres of public lands for each representative in Congress toward “the endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts.” In compliance with this act the territorial legislature of 1881 passed an act establishing an agricultural college at Brookings in the territory of Dakota.

The legislature of 1883 provided for the erection of the first building. This building now known as the central building, was built in 1884.

Upon the division of the territory of Dakota into the states of North and South Dakota when admitted into the Union in 1889, the agricultural and mechanical college of Dakota became known as the South Dakota Agricultural College.

2. **PURPOSE.**—The college is devoted to advancing the interests of practical education and its purpose is to give men and women such training as will best fit them for the active duties of life, whether it be in the fields, the shops, the house, or in the class or counting rooms.

In the act of the legislature establishing the institution it was designated “The Agricultural and Mechanical College” and in the Congressional Act these colleges were spoken of as “of Agricultural and Mechanic Arts,” and while the school is popularly called the “Agricultural College” the mere precedence of the term does not make it more agricultural than mechanical. While the work of the institution is largely sci-

entific it is of such a diversified character that it makes the student feel that he can pursue work along almost any line which his tastes dictate. The aim of all the work offered is to fit young people to be able to occupy more acceptably, any position they may be called upon to fill, than they could without such training; and to make better and more intelligent citizens of them.

A constant effort is made to reach the masses of the people in the states and interest them in the application of science to industrial pursuits and in the more general improvement of their home life and every day activities.

3. LOCATION.—The College is located in the east central part of the state, upon an eminence one mile from the business center of the city of Brookings and four miles from the Big Sioux river.

Brookings has a population of nearly two thousand thrifty, intelligent and hospitable people. Its streets are lined with trees and there are very few houses where there are not well kept lawns, upon which are growing trees, beautiful flowering shrubs and plants. It has often been called the "city of homes."

It is a city of clean morals. No saloon has been allowed within its limits for several years. In the spring election of 1898 the proposition to allow saloons within the city limits was defeated by a vote of three to one. While in the general election of 1896 Brookings county was the banner county of the state in its vote against allowing intoxicating liquors to be sold in the state.

It is situated on the Central Dakota division of the Chicago & North-western railway and three miles from its junction with the Watertown branch of the same road which makes connections with the main line at this point.

4. SOURCES OF INCOME.—By the Congressional act under which South Dakota became a state, one hundred and sixty thousand acres of land were set aside as an endowment for the

South Dakota Agricultural College. These lands are not yet quite all selected and none have as yet been sold. A small amount is now being received yearly as rental from the selected lands.

No school lands can be sold for less than ten dollars per acre so when these lands are all sold it will give an endowment of probably two million dollars, the interest from which will be sufficient for the needs of the college.

The "Morrill Act" passed by Congress in 1890 provides a yearly appropriation for "the more complete endowment and support of colleges for the benefit of Agriculture and Mechanic Arts." Under this act the college receives from the general government \$15,000 for the first year; \$16,000 for the second; \$17,000 for the third; and so on until the annual amount reaches and remains at \$25,000 during the pleasure of congress.

The Hatch act passed by Congress provides for the establishment of Agricultural Experiment Stations in connection with Agricultural Colleges and allows \$15,000 per year for the maintenance of the same.

The state legislature makes biennial appropriations for the support of the college. Its last appropriation for this purpose was *fifty-eight thousand dollars*.

5. PLAN OF ORGANIZATION.—The work of the institution is conducted in twenty departments, the heads of which report directly to the President who is responsible to the Regents for the whole work of the college. The head of each department is responsible to the President for the work of his department.

The President is in charge of all matters of administration and in his absence the chairman of the Executive Committee or the ranking member of that committee present will act in his place. The President is the proper person to address for information of any nature.

6. GENERAL POLICY.—It is the policy of the institution to make itself in truth a part of common school system, first by continuing the work of the young people, from the point in

their education where the lower school stops, thus giving them an opportunity to become liberally and practically educated within the boundaries of their own state, second to assist in the training of public school teachers, especially in the various sciences.

The college also desires to assist, as far as its resources will allow, in the self improvement at their homes, of the people of the state. To this end where half a score or more intelligent persons express a desire to study along some definite line, they will be advised as to the course of reading to pursue, and, if possible, be furnished a lecturer for one or more lectures after such reading has been faithfully completed. These home reading courses are in print and may be obtained upon application to the President. It is believed that this reading course is a more systematic, logical and effective method of outside instruction than promiscuous farmers' institutes where the attendance as a rule is largely made up of those who have no especial preparation and are present solely to be entertained.

The college does however, conduct farmers' institutes where proper preparation is made and the attendance is likely to justify such an undertaking. In all cases the college makes its best efforts to impart useful information whether it be by means of its publications, its instructors or its correspondence.

7. EXPERIMENT STATION.—This department is organized under the Hatch Act of Congress which appropriates fifteen thousand dollars from the United States treasury each year for its maintenance.

“It shall be the object and duty of said experiment stations to conduct original researches and verify experiments on the physiology of plants and animals,”—enumerating some twenty other lines of research,—“and such other experiments bearing directly on the Agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective states. To aid in acquiring and diffusing among the people of the United

States useful and practical information on the subjects connected with Agriculture." The South Dakota station conducts its investigations principally upon the following lines: Live stock, soils, field experiments, green house work, trees and small fruits, chemistry of plant growth and foods, and economic botany, entomology and zoology.

In planning the work of the station the main object sought is to assist the agricultural interests of the state. Education is derived from this in two ways, first from the student's observation of the actual work, second by reading the accounts and results of the work which are published in the form of bulletins and are available to any one applying.

B--Equipment.

1. CAMPUS.—The College Campus of thirty acres is beautifully located on an eminence within the corporate limits of Brookings. Under charge of the Horticultural department the campus, ornamented with a choice and tasty variety of trees and shrubs and laid out with necessary drives and walks, is a good example of landscape gardening. Adjoining on the rear is a fifty acre plat which is devoted to Horticultural gardens and the United States forestry experiments.

This portion is laid out regularly in suitably sized plats with longitudinal streets at appropriate distances apart, thus giving a beautiful and symmetrical effect to the observer from the college buildings.

2. BUILDINGS.—The oldest building on the campus known as the "Central Building," was completed in 1884. It is constructed of brick and stone and is devoted entirely to administrative and instructional purposes. The basement contains the boys' study and toilet rooms, "Collegian" and Y. M. C. A.

offices and two class rooms, besides several other offices and rooms. On the first floor are the administrative offices, the library, faculty room and one class room. The second floor accommodates the Commercial department, three rooms; the mathematical department, two rooms; and one large lecture room. The departments of Chemistry and Pharmacy occupy the third and upper floor.

The "South Building" the next one on the campus, is a three story brick and stone building devoted to the experiment station work and to the departments of Botany and Zoology. In the basement and on the first floor are the various station laboratories and offices. On the second floor is the Botanical class room, herbarium and laboratory. On the upper floor is located the department of Zoology with its various laboratories, class rooms and offices.

The "North Building," completed in 1888, is a four story brick building. The basement is used for a girls' study and retiring rooms and for the department of Physics consisting of laboratories, lecture, apparatus, office and dark rooms. The first floor is given up entirely to an assembly room seating about four hundred people. The second floor is given up to the departments of Art and Music, with the various drawing, offices and practice rooms and studios. The Domestic Science department occupies the third floor with its large sewing, cooking and dining rooms and kitchen. A hall in the attic is given up to Physical Culture. The girls' cottage is described under "4."

The "Horticultural Building" is a one story building of brick and wood, in which are the laboratories, class rooms and offices of the department. The green and forcing houses are adjoining.

The "Mechanical Hall," recently completed, is a two story brick building, containing the various shops, drawing, lecture and office rooms of the Mechanical Engineering department.

The last legislature appropriated money for a "Drill Hall" and a "Creamery." Plans are now being drawn for these new

buildings which are to be erected on the college campus during the summer of '99 and which will very materially increase the equipment of the institution.

3. FARM.—Set apart as the college farm is a tract of three hundred and twenty acres near the campus, about fifty acres of which is used by the Agricultural Experiment Station as an experimental farm. Here the field experiments with field crops, seed germination and soil preparation are conducted and the student electing it can witness and actually participate in this scientific work. The remainder of the farm is carried on as a model stock and dairy farm under the direction of the professor of Animal Husbandry. Practical work and experiments involving the best farming practices for this region are given the students.

4. DORMITORIES.—Originally the institution provided dormitories for both sexes but the demands for instructional purposes have increased so much more rapidly than the state has furnished means for new buildings, it has been necessary to convert the dormitories into rooms for the departments so that now the college undertakes to furnish quarters for about twenty young ladies only, in what is known as the "Girls' Cottage," a two story wooden building situated just west of the campus. The rooms are large, pleasantly situated, conveniently arranged and heated with hot water and hot air systems.

5. LABORATORIES.—The work done by the institution is so largely scientific in its nature that in order to use the most modern and approved methods it is necessary to provide laboratories for a large majority of the different departments.

The farm with its various well planned and stocked barns serves as one very practical laboratory for the department of Agriculture. The soils are physically and chemically studied in other separate laboratories. The Green House and Horticultural Gardens serve in a like capacity for the Horticultural department. The Biological departments are each provided

with adequate laboratories and necessary auxiliary rooms on the upper floor of the South Building. The Chemical laboratory and offices of the experiment station occupy the larger part of the first floor of the same building. On the top floor of the Central building is located the entire instructional departments of Chemistry and Pharmacy including a general qualitative laboratory for one hundred students, a quantitative laboratory which accommodates twenty-five students, a pharmaceutical laboratory for twenty students, and the necessary apparatus, store and weighing rooms. On the second floor of the same building is the actual business practice rooms for the Commercial department. On the upper floor of the North building the Domestic department is provided with a large kitchen, sewing room, model dining room and pantry, sufficient for the accommodation of seventy-five students. The second floor is divided into apartments for the Art and Music departments. In the basement are the general and advanced Physical laboratories with their necessary stock, apparatus and dark rooms. The mechanical laboratories are in the new Mechanical building, including a machine shop equipped for twenty students, a wood shop equipped for thirty students, a forge shop equipped for twenty students, a drawing room equipped for thirty-six students. The Astronomical observatory serves as a laboratory for the Mathematical department.

6. LIBRARY AND READING ROOM.—The library occupies rooms on the first floor of the Central building and contains about five thousand bound volumes and as many pamphlets. The institution being a repository for the Government, it contains quite a number of the governmental publications. Care has been exercised in the selection of books, in order that each department may have proper books of reference at the disposal of the students taking work in that line. The card system of cataloging is used, thus facilitating the use of the library. The reference portion is well supplied with proper books of reference. The files of all the standard, scientific and literary magazines are kept bound. The reading room portion is sup-

plied with the leading periodicals and newspapers. The library is nearly all the time, day and evening, at the disposal of the student for the purpose of study and reading.

7. OFFICES.—The president's and registrar's offices are on the first floor of the Central building and at the left of the main hall. The secretary of the faculty's office and general faculty room are entered from the end of the main hall. The secretary's and business office is at the end of the same hall. Nearly all the heads of departments are provided with offices in connection with their departments.

8. LECTURE AND CLASS ROOMS.—The class rooms are fitted to accommodate from thirty to fifty students each. Lecture rooms are fitted with arm rest chairs for ease in taking notes. The main lecture or assembly room is provided with opera chairs for seating about four hundred, and a fine electric dissolving projection lantern for illustrative purposes.

9. MUSEUMS.—The idea that museums are valuable as educational factors, only as they furnish illustrative material for study, has obtained in the collection of the various specimens and their arrangement in the several department museums. The Zoological, Botanical, Geological, Art and Engineering departments have made especially good beginnings in getting together material for that purpose. Constant additions are being made, thereby increasing their worth as adjuncts to laboratory work. The different collections are now kept in the departments to which they belong. Permanent and commodious rooms for the museums are projected and it is hoped they will materialize in the near future.

10. GENERAL STUDY ROOM.—A general study room for the young ladies, in conjunction with the necessary retiring rooms and toilet facilities, occupies part of the basement of the North building. The ladies of Brookings have very generously furnished part of the fittings necessary to its home like appearance. The young gentlemen are also provided

with similar rooms in the basement of the Central building. The institution furnishes first class postal facilities in each of these rooms.

11. **SANITARY CONDITIONS.**—Recently efforts have been directed to improving the sanitary conditions about the campus. The old methods have been superseded by sanitary plumbing throughout the buildings and a new sewerage disposal plant. The water supply is of the very best, the water being of good quality and very pure. The rarity of zymotic and infectious diseases during the past year is a proof that the sanitary conditions are excellent.

12. **HEATING.**—Good heating arrangements are a necessity in almost any climate but in a cold climate their importance increases. The main buildings are all heated with steam generated in a central heating plant. This plant also furnishes steam for running the machinery in the shop and generating electricity for lighting. Largely for purposes of cheerfulness and ventilation, fireplaces are provided in all the offices.

13. **LIGHTING.**—The college owns and controls its own electric light plant, thus making the light at all times available and economical. Many of the rooms and all the laboratories are provided with gas, which for purposes of illumination is used in Wellsbach burners, making a brilliant light.

14. **GYMNASIUM.**—A new commodious gymnasium is now in process of construction. This will contain a large drill hall and gymnasium for the boys and a physical culture room for the girls, both having connected with them bath and toilet facilities of the most approved nature.

C==Administration.

1. **GOVERNING BOARD.**—By an act of the Legislature approved March 10th, 1897, provision was made for the appoint-

ment of the "Regents of Education," to have charge of all the educational institutions of the state.

The law is "The Governor, by and with the consent of the senate shall appoint five persons of probity and wisdom from among the best and best known citizens, residents of different portions of the state, none of whom shall reside in the counties in which any of the state educational institutions are located, who shall be designated the regents of education." The terms of office of these regents, when first appointed, are of different lengths and after the first terms, are each six years, thus making it a continuous body. Vacancies are filled by the Governor during recesses of the senate. "The board shall organize by electing one of their members president, and by the election of a secretary. Thus qualified and organized they shall have authority to make such rules as are necessary for their own government as a board and shall immediately assume the exclusive control and management of all the educational institutions which are maintained either wholly or in part by the state." Along this line the powers and duties of the regents are defined, among which important ones may be mentioned, to employ or dismiss members of the different faculties and other agents, to determine the proper number of teachers in said faculties, also their compensation and term of employment, to establish departments, to settle upon courses of study, to determine the rules to be enacted for the government of the students, to decide upon text books to be used, to fix tuition fees, to guard against unwise duplications of departments, to confer degrees, to control the United States experiment station, and to promote education among the farmers by providing for institutes, in fact to make all regulations as to the executive and instructional functions of the educational institutions of the state. The regents govern the college largely through a regent committeeman.

2. FACULTY.—The faculty consists of the president and professors, all of whom are elected by the regents. The facul-

ty are heads of the departments of instruction which they represent and are responsible to the regents, through the president, who supervises the whole work of the institution. In order to aid the president in his executive duties he appoints, at the beginning of each college year, certain faculty committees, which take up such work as may be assigned them by the president and faculty and thus greatly facilitate the transaction of business and economize the time of the faculty. The faculty committees for the year beginning July 1st, 1899, are as follows, viz: Admission and Credits, Athletics, College Extension and Articulation, Department, Executive, Library and Reading Room, Literary Affairs, Living Arrangements of Students, Social Affairs, Students' Advisory, and Student Labor.

3. DEPARTMENTS.—The educational and experimental work is performed by the following departments, the heads of which are responsible to the president of the college for the work done in their individual departments. Each department will usually, hereinafter, be known by the abbreviation affixed. The work and equipment of each is described in detail under Part III.

DEPARTMENTS.

ABBREVIATIONS.

Agriculture.....	Ag.
Architectural and Agricultural Engineering.....	Ae.
Botany.....	Bt.
Chemistry.....	Ch.
Commercial.....	Cl.
Dairying and Animal Husbandry.....	Dy.
Domestic Science.....	Ds.
English.....	Eh.
Experiment Station.....	Ex.
Geology and Agronomy.....	G1.
History, Economics and Philosophy.....	H-P.
Horticulture.....	Ho.
Languages (foreign).....	Ln.

Mathematics	Ms.
Mechanical Engineering.....	Me.
Military.....	Mt.
Music and Physical Culture.....	Mu.
Pharmacy.....	Py.
Physics.....	Ph.
Preparatory.....	Pr.
Zoology and Veterinary Medicine.....	Zo.

4. **TERMS AND VACATIONS.**—The regular work of the college is carried on continuously during three terms designated as follows: Fall, Winter and Spring. These terms are designated in the schedule of studies as F. W. and S. The principal vacation of the year occurs in the Summer, from the last of June to nearly the close of September. The work of the Fall term begins in 1899 on September 27th, and continues until Dec. 20th, a period of twelve weeks of five days' work each. The Winter vacation will begin at noon on Dec. 20th, and last until noon Jan. 3rd, 1900, when the work of the Winter term will begin. This Winter term will last from Jan. 3rd, to March 28th, a period of twelve weeks, of five days' work each. The Easter recess, or Spring vacation, will occur from noon of March 28th, to noon of April 4th, 1900, when the work of the Spring term will begin. The Spring term continues twelve weeks, of five days' work each, and ends on June 28th, after all the exercises of Commencement week are completed. The dates indicated as the time when a term will begin refer to the day that recitation and laboratory work is begun. The matter of classifying should all be arranged before these dates and such provision is made in the calendar announcements.

5. **INTERNAL GOVERNMENT.**—The faculty determines the general policy of the college. In the matter of students' control at the college, the widest latitude consistent with good work, good order and good moral atmosphere is allowed. Students, especially those wearing the uniform of the cadet, are expected to conduct themselves at all times in a manner which

will reflect credit upon themselves and the institution they represent. Any student of the college who flagrantly shows disrespect for order, morality, personal honor and the rights of others will promptly have his relationship with the college severed.

6. RELIGIOUS EXERCISES.—Attendance on no religious exercises is required. The Young Men's and Young Women's Christian Associations are important elements in retaining a strong Christian fellowship among the student body. Their relations to the State and Inter-National organizations assist in keeping the college in touch with other educational institutions. Instead of the faculty holding daily chapel exercises and requiring attendance these student organizations are allowed to take the religious lead by holding prayer and devotional meetings nearly every day to which all are invited.

7. STUDENT AFFAIRS.—Students are allowed wide latitude in carrying on affairs which vitally concern themselves, such as athletic, literary, musical and social organizations. The faculty, in all these matters, retains an advisory interest and aims to assist the students in every way possible in making these elements especially helpful to the student body as a whole. In the matter of social enjoyments the faculty is disposed to allow a reasonable amount of time for recreation, and endeavors to contribute as far as possible toward making the students happy and contented.

8. REQUIRED EXERCISES.—There are certain requirements in the way of work exacted of every student, among which are military exercises, physical culture and rhetoricals. These subjects are thought to be of sufficient importance that every student can take them with profit.

9. STUDENTS' LIVING ARRANGEMENTS.—The faculty maintains the right to pass upon the living arrangements of every

non-resident student, so that all should report at once to the president.

10. DEPARTMENT.—The chief end of school life being to obtain thorough mental and moral discipline, it becomes incumbent upon the faculty to make the conditions as far as possible conducive to that attainment. No set regulations are expected to cover every contingency arising but it is necessary that all students recognize the fitness and importance of such restraints as are in force, and co-operate in securing their observance. In the absence of any rule applying, the student's own good judgment should suggest the proper procedure. Deportment is more fully treated under D.

11. TUTORING.—Students absent from class or college exercises or otherwise being unable to keep up with the work of their class, will at the suggestion of the head of the department arrange with a regular tutor of that department for assistance.

D==Special Information for Students.

1. TIME TO ENTER.—Students are admitted at any time and assigned to such classes as they are found best fitted to enter but it is much better to commence at the beginning of the college year or as soon thereafter as possible. No reduction in college fees is made when the student enters after the beginning of a term, and if a student enters late he will not under any condition be allowed to hold a class back. If a tardy beginning is imperative the student must arrange with a tutor to assist him in bringing up his work, in order that he may go on understandingly and without hindrance to the class.

2. EXPENSES OF STUDENTS.—No young person should be deterred from obtaining a liberal education when such advan-

tages as this college offers can be had at a nominal price. The aggregate of all the regular fees is only four dollars per term and is payable at the time of registration. Books and stationery are furnished by the student. A laboratory fee of one dollar per term is charged for the use of each laboratory in which a student takes work. An estimate of the yearly expenses of a student is given below in three grades, viz:

	LOW.	AVERAGE.	LIBERAL.
Tuition,	\$ 6.00	\$ 6.00	\$ 6.00
Incidental Fees,	6.00	6.00	6.00
Board and Room,	75.00	90.00	120.00
Clothes, including Military Uniform,	30.00	45.00	65.00
Laundry,	12.50	15.00	25.00
Books and Stationery,	15.00	25.00	35.00
Laboratory Fees,	0.00	2.00	5.00
Traveling Expenses	0.00	10.00	25.00
Total,	\$144.50	\$199.00	\$287.00

Any fairly prudent student can pay all his expenses with \$165.00 per year.

3. LIVING ARRANGEMENTS.—The institution does not provide other dormitories than the girls' cottage, which has sufficient rooms for about twenty girls, who are constantly under the charge of a competent matron. In connection with the cottage a club is run under the supervision of the college, which is able to furnish table board to about forty students, at a cost approximately of \$2.25 per week.

Good rooms can be secured in the city at private houses or hotels for 50 cents per week and upward. There are also many places where rooms and board can be obtained at reasonable rates. A list of approved available places for boarding or rooming can, at any time, be obtained from the president of the college. The Christian Associations make it

a point at all times to assist new students in finding proper living accommodations.

4. **STUDENT LABOR.**—The arrangement and amount of college work is such that any reasonably apt student should have at least two hours per day for recreation or outside work. The terms are so distributed through the year as to give the longest period of vacation possible in the Summer, thus enabling students to earn money. The college is not an eleemosynary institution but it gives many opportunities for each student to perform work which is of a purely educational character and for which no financial compensation is allowed. There is also a limited amount of paid labor about the institution which can well be done by students and it is the policy of the regents to give as much work to deserving students as is consistent with the best interests of all. No one should expect to earn his entire expenses while in college and doing his school work, or be assured of an income in advance from paid labor.

5. **GENERAL CONDITIONS OF ADMISSION.**—The candidate for admission to the college must be at least fourteen years old and of good moral character. Students will be admitted regularly as follows, viz:

First. Those who have satisfactorily completed the work of the Preparatory department.

Second. Those who have properly completed the work in any other reputable institution and present satisfactory evidence to that effect.

Third. Those who pass examinations in that work at the college.

Students applying for entrance to the preparatory department must present evidence that they have completed the work of the public schools as far as the ninth grade.

6. **TIME OF ENTRANCE EXAMINATIONS.**—The Monday and Tuesday immediately before the opening of each term will be

devoted to examining students applying for admission, both to the college and the preparatory department.

7. ADMISSION FROM OTHER INSTITUTIONS.—Students will be admitted to the college upon certificate from other reputable institutions, provided it shows:

First. The student was honorably dismissed from that institution.

Second. The student has completed creditably the work for which he requests credit.

8. ENTRANCE CONDITIONS.—A student may be admitted to the college not having passed in one or two of his entrance studies. These shall stand against him and must be cleared up within one year after entrance or the student will be required to take the subject or subjects with the preparatory class.

9. ADVANCED STANDING.—Students entering in advance must present grades from some reputable institution, showing that they have satisfactorily completed the work for which they ask credit or submit to an examination on that work at the college.

10. CREDITS FROM ENTRANCE SUBJECTS.—If a student has passed in all his entrance subjects, he will be allowed to take examinations on any subject offered, if there are no prerequisites which shall bar him, and passing in such subjects shall receive due credit therefor.

11. SPECIAL STUDENTS.—Students of mature years may be allowed to pursue special studies where they are not candidates for a degree but they must in all cases, satisfy the faculty that they are qualified to take up the studies desired and that such studies are above the work of the preparatory department.

12. METHOD OF REGISTRATION (Preparatory Students).—All students in the preparatory department are expected to take the regular studies there provided. Those who desire to enter upon this work should fill out a blank card, take it to the

secretary of the college and get it stamped, showing the fee has been paid for the term. This card handed to the registrar will be exchanged for a classification card showing what subjects are to be pursued during the term. The classification card will admit the student to his recitations and laboratory work and must in all cases be presented to the instructor for his signature and then returned to the registrar.

13. COLLEGE STUDENTS.—Students applying for admission above the preparatory department must present satisfactory evidence of having completed all the subjects required for entrance upon the advanced work. The sub-freshman year is the same for all regular students and should be taken by those who expect to complete the pharmacy course or receive the Bachelor of Science degree. The freshman year is almost the same for all except pharmacy students. All students should endeavor to decide their major line of work by the end of the Fall term freshman year. It is possible after that to branch out some in the direction of major work, but very little specializing can be done until sophomore and junior years are reached.

When a student wishes to map out his entire course, he should apply to the registrar for a special blank for the purpose. The president, the registrar, members of the advisory and admission committees and heads of the departments, all offer their services to students who need assistance in making up courses of study. The same method of classifying is employed here as in the preparatory department. No one will be admitted to any class or laboratory exercise except upon a card from the registrar.

14. GENERAL STATEMENT.—The instructional work of the institution divides itself naturally into two main classes, studies which lie at the foundation of the Agricultural processes and those which bear more directly upon technological lines of work such as Mechanical, Steam and Electrical Engineering. The work of the college is moreover offered in

such a way as to be best adapted to individual characteristics and needs and at the same time to secure for all a well rounded or symmetrical development.

15. COURSES DEFINED.—A full course is a five hour per week lecture or text book study for one term and is designated as a small (a) course. A full laboratory or practicum course is a ten hour per week exercise for a whole term and is designated as a small (b) course. A half course is one-half the above and a combination of the two is designated a small a b, course. No student will be permitted to take more than four nor less than two full courses in any term.

16. DEGREES.—The college offers but two complete Baccalaureate degrees, Bachelor of Agriculture and Bachelor of Science. In each case the candidate for either degree must complete in a satisfactory manner fifty-two courses above the Preparatory work according to requirements in (18) also one disquisition or thesis of appropriate length on some subject connected with the "major." For the Master's degree the graduate student is required to pursue study along a line in which he can offer not less than six courses of undergraduate work from this or some other reputable college. He must do at least one year of resident study and complete an amount of advanced work equal to ten undergraduate courses. He must also present not less than ten copies of a printed thesis on some subject closely related to his major line of work and approved by the head of the department in charge of his major studies.

17. MAJOR AND MINOR SUBJECTS.—Candidates for Bachelor's degrees are allowed the privilege of electing six or more courses along lines in which they wish to specialize the most. These courses will constitute the "major" of the candidate and must be selected from among the groups offered or from the *advanced* work (Junior and Senior year) in such departments as are designated. Every such candidate may choose three other courses from groups provided or in departments designated. These shall be termed his "minor" subject. The two

general electives, or second minors provided are intended to help the student bring up his prerequisites or in some other way contribute toward his general scholarship and should be selected with reference to these ends. They must, moreover be closely related to his major or minor.

18. COURSES NECESSARY FOR BACHELOR'S DEGREE.—The required courses for science students, or those who are candidates for Bachelor of Science degree in scientific lines are the following:

GROUP (A) REQUIRED COURSES.—

Six courses in Mathematics.

Seven courses in English.

Six courses in some language other than English.

Two courses in Military or Physical Culture.

Three courses in Physics.

Two courses in Chemistry.

Two courses in Practicums.

Two courses in Botany.

Two courses in Zoology.

Four courses in History.

Two courses in Economics and Philosophy.

Two courses in Geology.

One course in Descriptive Astronomy.

ELECTIVE COURSES.—

Six courses in Major Subject.

Three courses in Minor Subject.

Two courses in General Electives or Second Minors.

Majors in connection with group A may be chosen from advanced work in the following departments: Agriculture, Horticulture, Veterinary Medicine, Botany, Chemistry, Physics, Zoology, Mathematics, English, History and Economics. Majors and Minors may also be chosen from groups of studies offered in connection with certain departments. See Part III.

Bachelor of Agriculture will be conferred upon students completing in a satisfactory manner, the following:

- Six courses in Mathematics.
- Seven courses in English.
- Two courses in Military.
- Three courses in Physics.
- Four courses in Chemistry.
- Two courses in Practicums, (Wood and Iron Work.)
- Three courses in Botany.
- Two courses in Zoology.
- Four courses in History.
- Two courses in Economics and Philosophy.
- One course in Descriptive Astronomy.
- One course in Soil Physics.
- One course in Entomology.
- One course in Chemistry of Foods.
- One course in Domestic Dairying.
- One course in Agricultural Chemistry.
- One course in Breeds of Live Stock.
- One course in Stock Feeding.
- Four-fifth course in Horticulture.
- One course in Pomology and Olericulture.
- Three-fifth course in Soil Fertility.
- Three-fifth course in Agricultural Experiments.
- One course in Stock Breeding.
- One course in Veterinary Medicine.
- One course in Equipment of Stock Farms.
- One course in Bacteriology.
- One course in Forestry and Arboriculture.
- One course in General Agriculture and Plant Evolution.

Total, fifty-two full courses, without any foreign language, full of practical studies having direct bearing on Agricultural processes. This course is intended to meet the wants of those returning to the farm. Courses offered are described in Part III.

Requirements for Bachelor of Science degree in Engineering studies.

GROUP (B) REQUIRED COURSES.—

- Eight courses in Mathematics.
- Six courses in English.
- Two courses in Military.
- Four courses in Physics.
- Two courses in Chemistry.
- One course in Botany.
- One course in Zoology.
- One course in Geology.
- Three courses in French.
- Two courses in History.
- Two courses in Economics and Philosophy.
- Eight courses in Mechanics as follows:
 - (a) Two in Drawing.
 - (b) Three in Shop Work.
 - (c) One in Elementary Mechanics.
 - (d) One in Steam Engine.
 - (e) One in Strains and Frame Structures.

ELECTIVE COURSES.—

- Six courses in Major Subject.
- Three courses in Minor Subject.
- Two courses in General Electives or Second Minor.

Majors in connection with group (B) may be chosen from advanced work in the following departments: Agricultural and Architectural Engineering, Electrical Engineering, Mechanical Engineering and Physics, also Majors and Minors from groups suggested in connection with certain departments in Part III.

19. SHORT COURSES.—The college also offers short courses in several important and practical lines of work:

1. A two year's course in Pharmacy, upon completion of which the degree of Pharmacy graduate is conferred.
2. One year's course in Business Branches.

3. One year's course in Stenography and Typewriting.
4. Two term's course in Steam Engineering.
5. One term's course in Agriculture.
6. One term's course in Horticulture.
7. One term's course in Dairy Science.

20. GRADES.—All grades are reported to the Registrar in figures on a scale of 100 as perfect. Grades are reported to students in groups or classes as follows: Class "A" representing grades between 90 and 100. Class "B" from 80 to 90. Class "C" from 70 to 80 and class "D" for all grades below 70. Students having a term grade of "A" are not required to take final term examination with their class. Any student having a final term grade of "D" in a subject is conditioned.

Determination of Final Grade.—Ordinarily twice the recitation grade is added to the final examination grade and one-third of the sum is the "final grade." Large latitude is given the teacher, especially in the more advanced work, in the method of determining the student's "final grade."

21. CONDITIONED STUDENTS.—No student is allowed to register for advanced work who is conditioned in more than one course pursued in any one preceding term, neither will a student be permitted to register for advanced work at the beginning of any college year with more than one condition from previous work except when the student by permission changes major or minor and satisfies the faculty that he is unable to remove conditions.

22. ATTENDANCE AND DISMISSAL.—Students are expected to attend regularly all the exercises of the class to which they are assigned from the date of their classification. When once classified they are required to be present from the beginning of each term thereafter, until regularly dismissed.

When a student finds it necessary to be absent he should get an excuse in advance, if possible. Otherwise it must be applied for at the earliest possible date after return to work. Excuses will be granted only when the absence seems necessary.

All omitted work must be made up within two weeks after return to college duties, unless the health of the student requires a longer period. Applications for this extension should be made to the President when the student returns to work. This omitted work must be made up according to the direction of the instructor and at times designated by him or the tutor in charge of the same. Should a student find it necessary to sever his connection with the institution before his course is completed, he should report to the President his reasons and secure an honorable dismissal.

23. DEPARTMENT.—Every student is allowed the fullest freedom of conscience and is supposed to have well grounded habits of politeness, industry, punctuality and integrity but in order that the faculty may deal justly with any exceptional cases the following regulations are in force. Upon entering the college and at the beginning of each term the student shall receive 100 department credits. Each unexcused absence shall be one discredit as also any improper conduct noted and reported by any instructor. The number of credits a student has at the end of any term or at the time of severing his connection with the institution, determines his grade in department the same as in a study. Should the number fall below eighty the student will be considered upon probation and if of age will be notified of the fact, otherwise his parents or guardian. Should his credits fall below seventy the student will be suspended for the remainder of the term.

24. SCHOLARSHIPS.—The following article from the law, defining powers and duties of the Regents of Education is self explanatory. "The Regents of Education shall fix all rates of tuition and of other fees to be paid by students, but such rates must be the same in all the different institutions. They may receive free of tuition two students appointed by each senator and one by each representative of the state legislature in any one of the institutions under their control; provided that the period for which appointment was made shall expire with the

term of office of said senator or representative and provided that such appointees shall be residents of the district or county whose senator or representative makes the appointment; and provided further that such appointees shall comply with all the rules and requirements of the institution which they desire to enter. No student, however, shall receive any other gratuity whatever." The Regents of Education make this article operative in the case of this institution.

25. CO-EDUCATION.—Recognizing the value of industrial training as a feature of a practical institution for the masses, the college authorities have provided the various shops and laboratories in which the young men of the state may become familiar with the use of the different tools required in the principal mechanical industries. These special facilities are not confined to the young men, but special departments such as Domestic Science, Art and Music have been established so that the young lady students may have opportunities to fit themselves for a keener appreciation of the realities and enjoyments of life in the home, the school room, the store, the office or the factory. The young woman will profit as much by the introduction of rational methods into her education as the young man, and while the shops, studios and laboratories may be used in some instances by the young man, and in others by the young woman, they are all open to both and in most cases students of both sexes will be seen working side by side. Instead of military drill the young lady students are required to take a similar amount of physical training.

26. ORATORY.—Every regular student who is a candidate for a Bachelor's degree must take the work offered in oratory and argumentation, as described in Eh. 9. All work in essays, rhetorical and oratory ranks as important subjects, and standings obtained for this work will enter fully into the final grade of the student.

27. PRIZES.—As an incentive to better work in oratory the president of the college offers two suitable prizes. A first

and second prize will be awarded such regular members of the Junior class as excel in the work of Eh. 9. The standings of the year in this course will be used to select six contestants who will compete for the prizes in an oratorical contest at the close of the year.

28. **MILITARY REQUIREMENTS.**—The national law organizing and endowing these agricultural colleges requires that military science shall form a part of the instruction offered. The following regulations are in force in this institution concerning military duty:

(a) Male members of the preparatory department are required to take the drill of Fall and Spring terms but may omit the drill recitations of the Winter term.

(b) All male students above the preparatory department are required to take the work in Military offered for the first two years they are connected with the college or until they complete the required number of Military courses.

(c) No exemption from Military duty is allowed except upon excuse by the faculty for physical disability or other grave reasons. When such an excuse is granted some other work satisfactory to the faculty must be taken as an equivalent.

29. **PHYSICAL CULTURE.**—Unless excused for physical disability every female student is required to take Physical Culture twice a week for the first three continuous years of the time she is a student in the institution. Students taking Physical Culture will furnish special costumes for the same indicated by the instructor.

30. **ATHLETICS.**—The above physical exercises only serve as a basis for many other forms of athletic exercises practiced, and which are recommended and encouraged by the officers of the college. Under the auspices of the local organization, and a number of the State Athletic Associations, all kinds of athletic sports are practiced and encouraged. The local representatives contest at the state "meet" once a year for athletic as well as other honors.

31. **ASSEMBLY.**—No student is compelled to attend any religious exercise, but inasmuch as a congregation of all the students as often as once a week is desirable for social and economic reasons, on every Wednesday "Assembly" is held in the chapel, attendance upon which is required of every student and expected of every instructor. Usually an entertaining program is rendered consisting of an address by some competent person, or a short news review of the week by one of the students, and announcements for the following week interspersed with music, thus making this exercise instructive and entertaining.

32. **THESES.**—Every thesis or disquisition must be complete and in the hands of the professor directing the work at least ten days before Commencement day. The final form of thesis is determined by the professor in charge except that all descriptive matter must be put in good type and neatly bound.

33. **LITERARY SOCIETIES.**—There are three literary societies composed entirely of college students. These societies meet on every Saturday evening for literary exercises. A generous and fruitful rivalry for college honors exists among them, stimulating each to its best efforts. These societies are an important factor in the student's education and all are strongly advised to become members. All preparatory students are expected to become members of the Franklin society. The work of this society is carried on under the supervision of the head of the preparatory department and has a special function as preparation for college society work.

34. **PUBLIC ENTERTAINMENTS.**—In all cases of public entertainments the students taking part are required to submit their exercises first to the officer regularly in charge of such work, and to rehearse before the instructor of elocution at least ten days before the day of public performance, and as often as the instructor may designate.

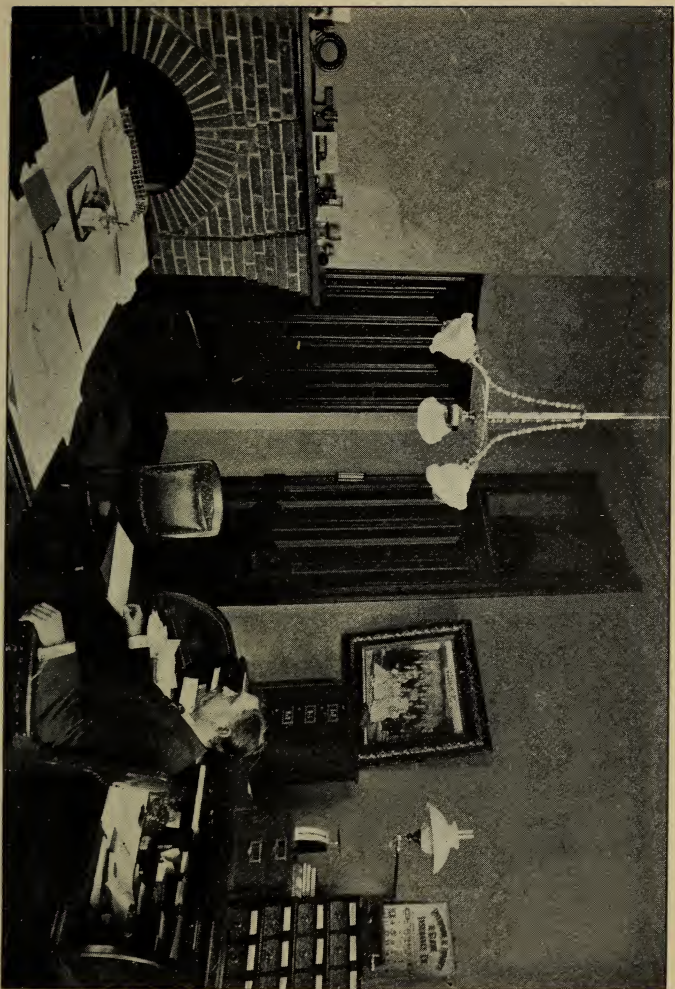
35. **CHRISTIAN ASSOCIATIONS.**—The young men's and young women's Christian Associations of the college are vol-

untary organizations. The purpose of the local organizations is to promote growth in grace and Christian fellowship among their members. They seek to surround the students with an earnest spiritual atmosphere; to minister to their intellectual, moral and social well being; and to exert a voluntary Christian influence in the college which shall be strong and helpful. As members of the Christian Inter-collegiate movement they receive all the benefits which accrue from such fellowship and from personal supervision of state and international college secretaries. Each association maintains daily prayer meetings and weekly devotional services.

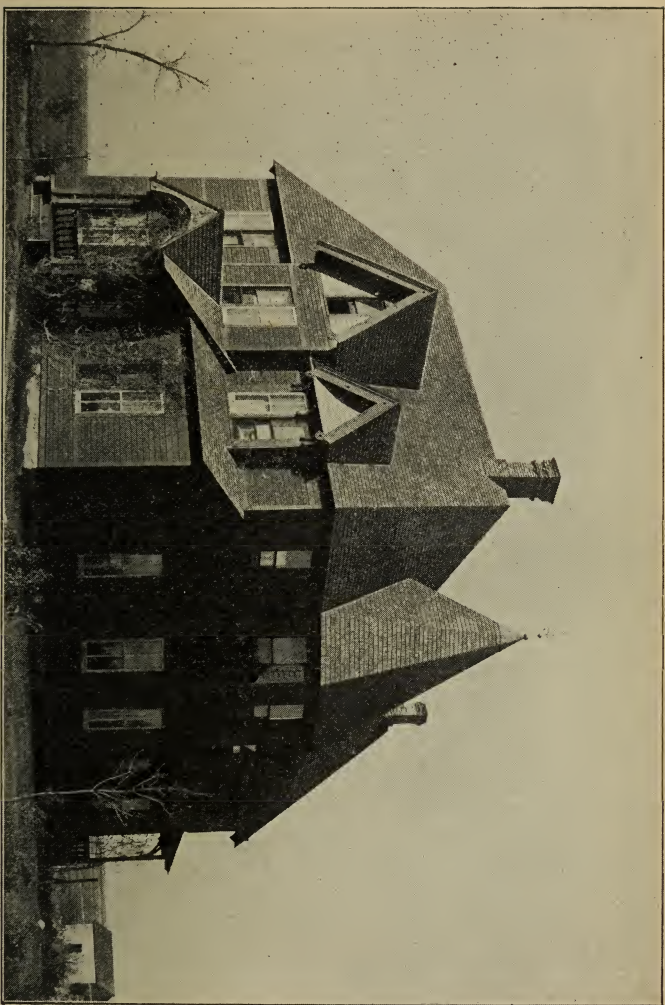
36. GRADUATE CLUB.—The graduate club has been formed for the purpose of promoting good fellowship and broad scientific interest among the graduate students and resident graduates of the college. The club meets regularly on the last Friday of each month during the school year. At these meetings papers are read, the object of which is to present in a comparatively untechnical form a brief outline of some topic of research, preferably touching recent advances in science.

37. OTHER ORGANIZATIONS.—Among other organizations may be mentioned the Oratorical Association which has for its mission the promoting of oratory among the students. Each year it sends a representative to the state contest. There are various other technical organizations connected with the college, each occupying its own sphere of usefulness.

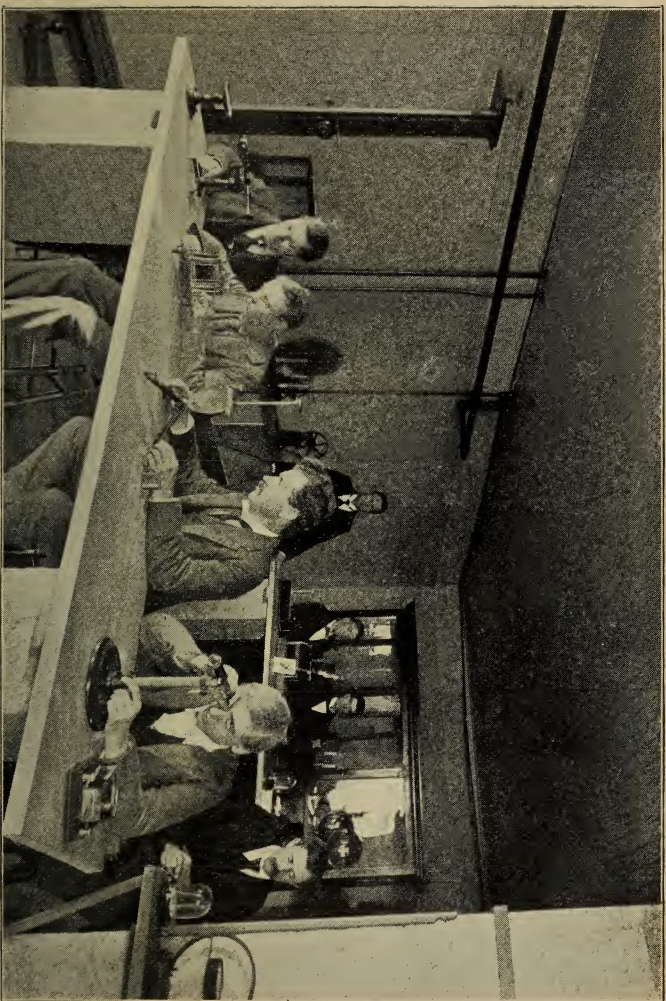
38. STUDENT PUBLICATIONS.—The "Industrial Collegian" is a sixteen page monthly magazine published by the students of the college. The "Collegian" aims not only to be the organ of the student body but a mirror of student life at this institution. The editorial staff is composed of an Editor-in-Chief, a Business Manager, and one member selected by each regularly organized literary society in the college. The Editor-in-Chief and the Business Manager are selected at the close of each Winter term by the students who are at the time of such election bonafide subscribers of the "Collegian."



PRESIDENT'S OFFICE.



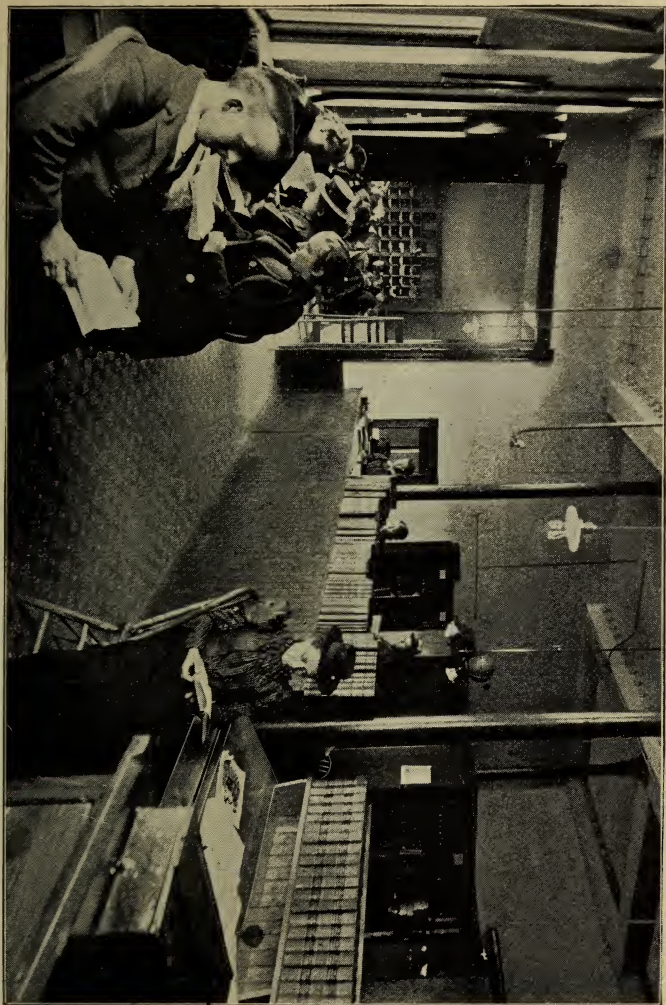
GIRLS' COTTAGE.

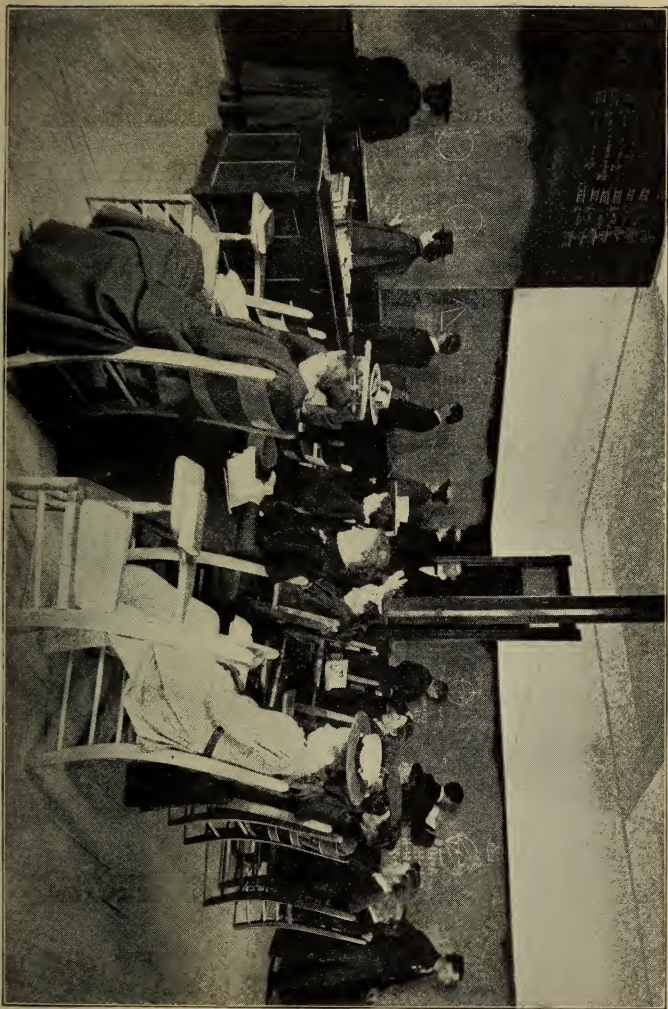


ADVANCED PHYSICAL LABORATORY.

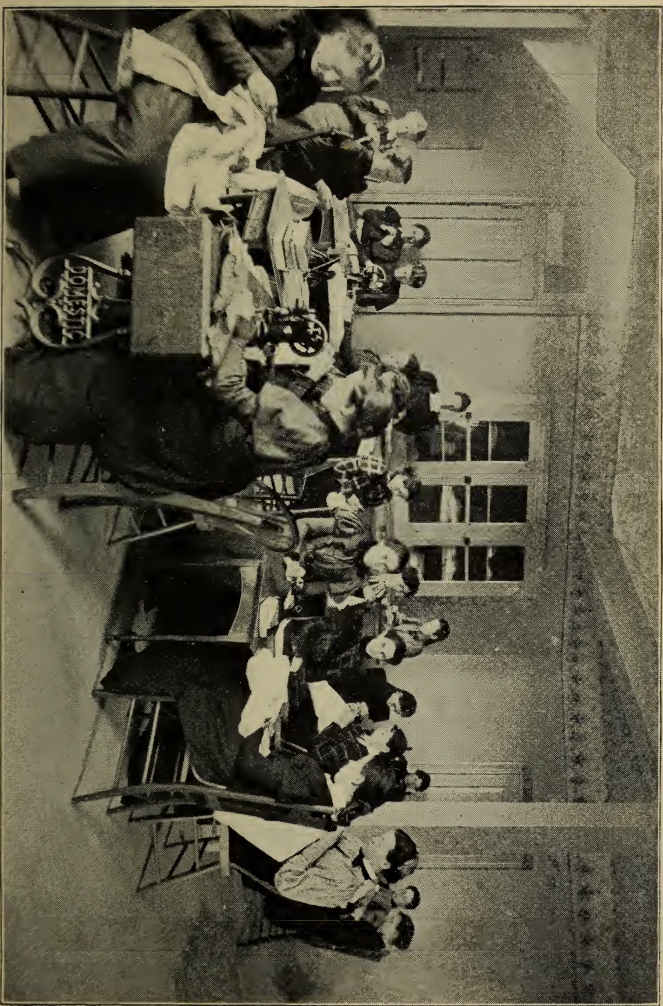


FOOT BALL TEAM.

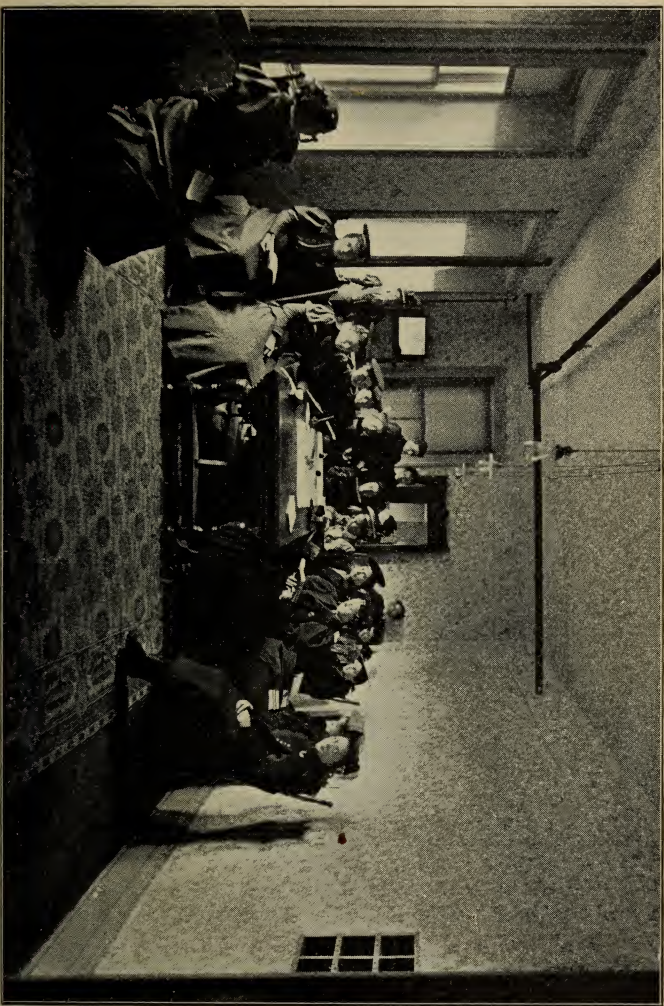




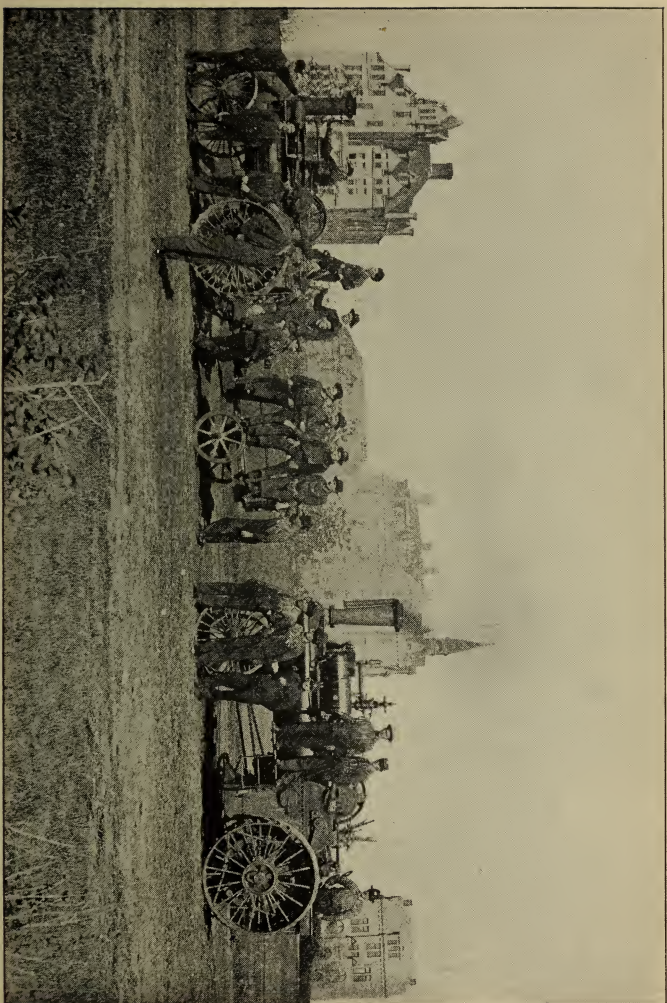
CLASS IN GEOMETRY.



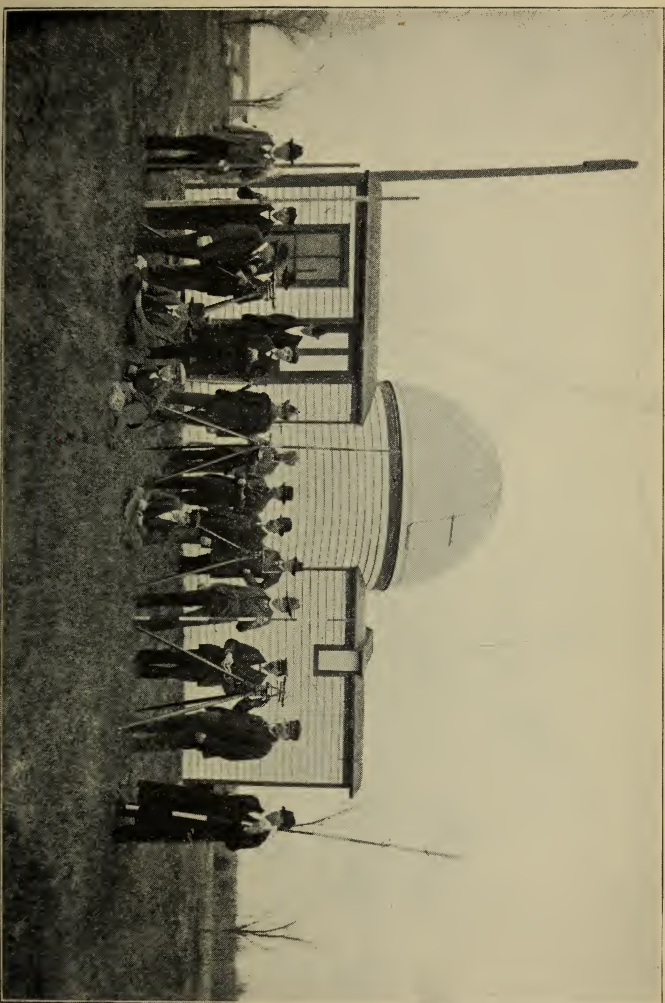
SEWING ROOM.



GIRLS' STUDY.



J. I. CASE T. M. Co., SIDE CRANK COMPOUND SPRING MOUNTED ENGINE.



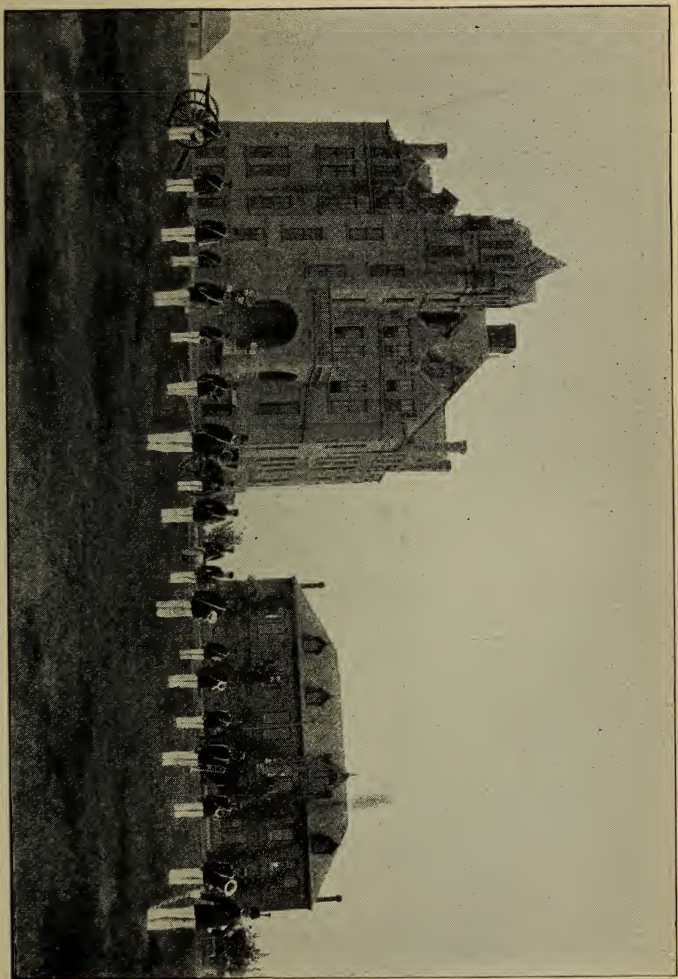
PARTY IN FIELD WORK.



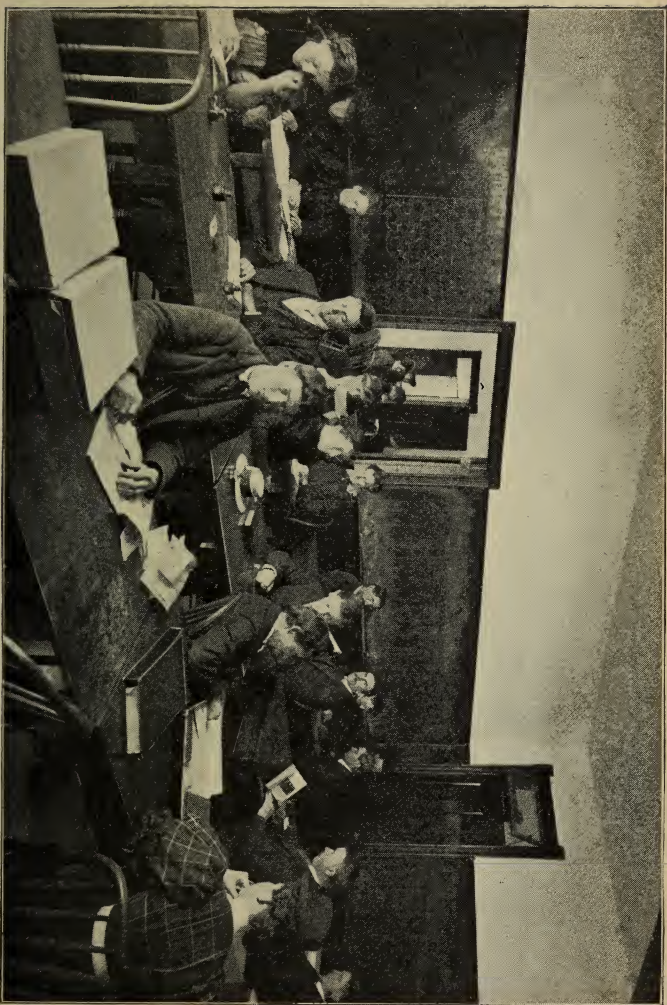
INDUSTRIAL COLLEGIAN STAFF.

IN THE FORCING HOUSE.

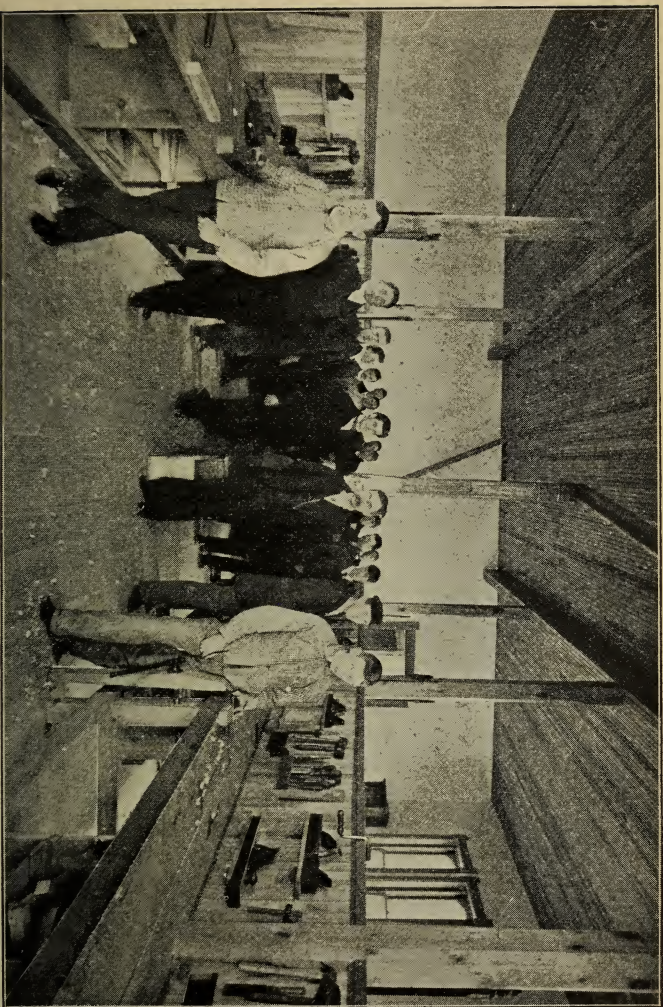




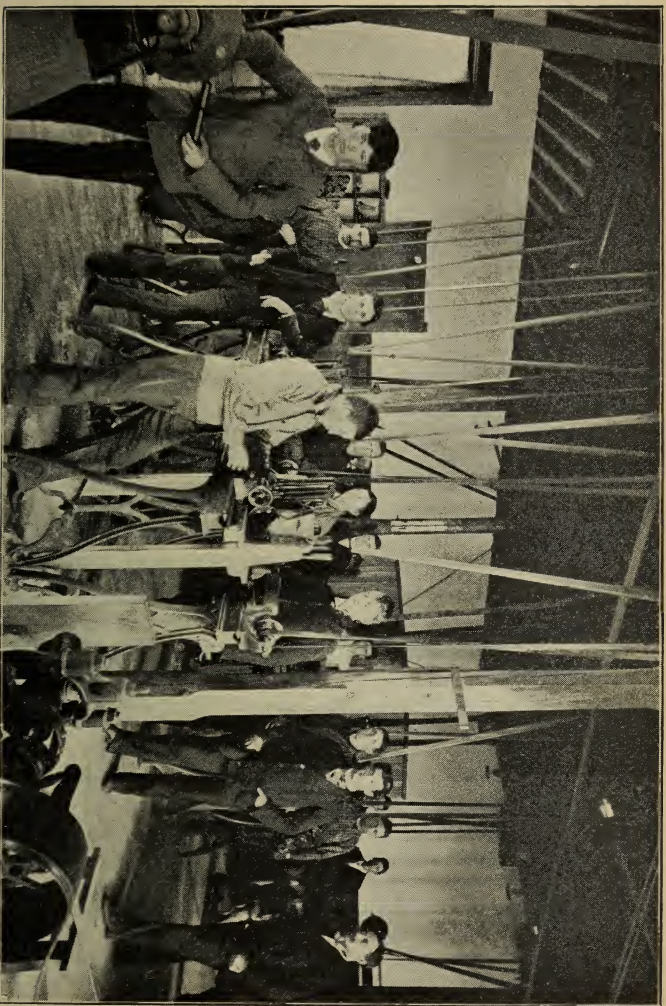
THE COLLEGE BAND.



LECTURE ROOM.



WOOD WORKING SHOP.



MACHINE SHOP.

Part Three.

Description of Departments and Work.

REQUIRED AND ELECTIVE WORK.—Forty-one of the courses required for graduation are the same for all. These are printed in **bold** type. Students should observe that Majors and Minors *cannot* be chosen in Domestic Science, Industrial Art, Music nor Commercial departments, but may be taken from the work offered in Agriculture, Horticulture, Botany, Chemistry, Zoology, Veterinary Medicine, Pharmacy, English, History and Economics, Mathematics, Physics and Agricultural, Electrical and Mechanical Engineering departments.

EXPLANATORY NOTE.—In the courses described herein (a) represents an hour class period, (b) represents a two hour laboratory period except in case of Military Drill, Physical Culture, Free-hand Drawing, etc., where *italics* are used to indicate an exercise of but one hour. Arabic numbers placed after two letters as (a 5) (b 2) etc., indicate a full or partial course, (a 5) would therefore mean a full course or daily recitation for a term, (b 2) would mean laboratory exercise but twice each week for a term. Except where otherwise indicated a subject as (a 3) will come Monday, Wednesday and Friday and (b 2) will come Tuesday and Thursday. Arabic numbers on the left of descriptive work indicate number of the course. (Pre.) means prerequisite for the course. F., W. and S. stand for Fall, Winter, and Spring terms. Courses required for Bachelor's degree are printed in **bold** type.

ILLUSTRATIVE COURSES.—For the convenience of students the following groups or courses are provided, showing how the required courses may be arranged in the several lines of work offered. These courses are *merely suggestive* except in the case of Domestic Science, Industrial Art and Music. The only arrangement of work permitting Art, Music and Domestic Science studies to be credited in obtaining a degree is in the Domestic Science, Literature and Art groups offered.

Freshman Year.

PRACTICAL AGRICULTURAL COURSE.

Fall.

8:30	Chemistry,.....a 3, b 2.
9:30	
10:30	Geometry,.....a 5.
11:30	<i>Military</i> ,b 3.
2:00	Botany,.....a 2, b 3.
3:00	Lit. & Adv. Rhet.,....a 2.

Winter.

	Horticulture,.....a 2.
	Lit. & Adv. Rhet.,....a 3.
	Geometry,.....a 5.
	Breeds L. Stock, ..a 4, b 1.
	<i>Military</i> ,a 2.
	Chemistry,.....a 3, b 2.

Spring.

	Am. Literature, .....a 2.
	Botany, .....a 3.
	Organic Chemistry, ..a 4.
	Trigonometry,.....a 5.
	<i>Military</i> ,b 3.
	Horticulture, .....b 2.
	Organic Chemistry, ..b 1.
	Botany, .....b 2.

SCIENTIFIC AGRICULTURAL COURSE.

8:30	Chemistry,.....a 3, b 2.
9:30	
10:30	Geometry,.....a 5.
11:30	<i>Military</i> ,b 3.
2:00	Botany, .....a 2, b 3.
3:00	Lit. & Adv. Rhet.,....a 2.

	Horticulture, ....a 2.
	Lit. & Adv. Rhet.,....a 3.
	Geometry, .....a 5.
	Breeds L. Stock, ..a 4, b 1.
	<i>Military</i> ,a 2.
	Chemistry, .....a 3, b 2.

MECHANICAL ENGINEERING.

8:30	Chemistry,.....a 3, b 2.
9:30	
10:30	Geometry,.....a 5.
11:30	<i>Military</i> ,b 3.
2:00	Botany,.....a 2, b 3.
3:00	Lit. & Adv. Rhet.,....a 2.

	Am. Literature, .....a 2.
	General Physics, .....a 3.
	Trigonometry, .....a 5.
	<i>Military</i> ,b 3.
	General Physics, .....b 2.
	Surveying,b 2.

Freshman Year==Continued.

ELECTRICAL ENGINEERING.

8:30	Chemistry,.....a 3, b 2.		Am. Literature,.....a 2.
9:30	Geometry,.....a 5.		General Physics,.....a 3.
10:30	Mech. Drawing,.....b 5.		Trigonometry,.....a 5.
11:30	Military,.....a 2.		<i>Military</i> ,.....b 3.
2:00	Botany,.....a 2, b 3.		{ General Physics,.....b 2.
3:00	Lit. & Adv. Rhet.,.....a 2.		{ Surveying,.....b 2.

AGRICULTURAL ENGINEERING.

8:30	Chemistry,.....a 3, b 2.		Am. Literature,.....a 2.
9:30	Geometry,.....a 5.		General Physics,.....a 3.
10:30	Mech. Drawing,.....b 5.		Trigonometry,.....a 5.
11:30	Military,.....a 2.		<i>Military</i> ,.....b 3.
2:00	Botany,.....a 2, b 3.		{ General Physics,.....b 2.
3:00	Lit. & Adv. Rhet.,.....a 2.		{ Surveying,.....b 2.

DOMESTIC ECONOMY COURSE.

8:30	Chemistry,.....a 3, b 2.		{ Am. Literature,.....a 2.
9:30	Geometry,.....a 5.		{ Botany,.....a 3.
10:30	Household Economy,.....a 5.		Organic Chemistry,.....a 4.
11:30	<i>Physical Culture</i> ,.....b 2.		Trigonometry,.....a 5.
2:00	Botany,.....a 2, b 3.		<i>Physical Culture</i> ,.....b 2.
3:00	Lit. & Adv. Rhet.,.....a 2.		{ Clay Modeling,.....b 2.
			{ Organic Chemistry...b 1.
			{ Botany,.....b 2.

The Art and Literature Course for this year is the same as the Domestic Economy Course, except that in the Winter term Horticulture and Household Economy are omitted, and in the Spring Organic Chemistry, Clay Modeling being taken three times per week.

Sophomore Year.

PRACTICAL AGRICULTURAL COURSE.

Fall.

8:30	Soil Physics,.....a 2.	
9:30	Am. Literature,.....a 3.	
9:30	El. Geology,.....a 5.	
10:30	General History,.....a 5.	
11:30	<i>Military</i> ,.....b 3.	
2:00	Soil Physics,.....b 3.	
3:00		

Winter.

	{ General History,.....a 5.	{ Entomology,.....a 2.
	Shakespeare,.....a 5.	General Physics,..a 3, b 2.
	{ Botany,.....a 2.	
	{ Chemistry of Food,..a 3.	
	<i>Military</i> ,.....a 2.	<i>Military</i> ,b 3.
	{ Botany,.....b 3.	{ Ad. Physiology,.....a 5.
	{ Chemistry of Food,..b 2.	Entomology, .....b 3.

SCIENTIFIC AGRICULTURAL COURSE.

8:30	Soil Physics,.....a 2.	
9:30	Am. Literature,.....a 3.	
9:30	El. Geology,.....a 5.	
10:30	General History,.....a 5.	
11:30	<i>Military</i> ,.....b 3.	
2:00	Soil Physics,.....b 3.	
3:00		

	{ General History,.....a 5.	{ Entomology,.....a 2.
	Shakespeare,.....a 5.	General Physics,a 3, b 2.
	{ Botany,.....a 2.	
	{ Chemistry of Food,..a 3.	
	<i>Military</i> ,.....a 2.	<i>Military</i> ,b 3.
	{ Botany,.....b 3.	{ Adv. Physiology,.....a 5.
	{ Chemistry of Food,..b 2.	Entomology, .....b 3.

MECHANICAL ENGINEERING COURSE.

8:30	Am. Literature,.....a 3.	
9:30	High Algebra,.....a 2.	
9:30	El. Geology,.....a 5.	
10:30	General History,.....a 5.	
11:30	<i>Military</i> ,.....b 3.	
2:00	Forging,.....b 2.	
	Mech. Drawing,.....b 3.	

	{ General History,.....a 5.	{ Dif. Calculus,.....a 5.
	Ele. of Mechanism,..a 5.	El. Mechanics, .....a 5.
	An. Geometry,.....a 5.	<i>Military</i> ,b 3.
	<i>Military</i> ,a 2.	Machine Design,..b 3.
	Forging,.....b 3.	Machine Shop, .....b 2.
	Mech. Drawing,.....b 2.	

ELECTRICAL ENGINEERING COURSE.

8:30	Am. Literature,.....a 3.	{	General History,.....a 5.	{	Dif. Calculus,.....a 5.
9:30	High Algebra,.....a 2.	{	El. of Mechanism,.....a 5.	{	El. Mechanics,.....a 5.
10:30	El. Geology,.....a 5.	{	Anal. Geometry,.....a 5.	{	<i>Military</i> ,b 3.
11:30	General History,.....a 5.	{	Military,.....a 3.	{	Machine Design,.....b 3.
2:00	<i>Military</i> ,b 3.	{	Forging,.....b 3.	{	Machine Shop,.....b 2.
	Forging,.....b 2.	{	Mech. Drawing,.....b 2.		
	Mech. Drawing,.....b 3.				

AGRICULTURAL ENGINEERING COURSE.

8:30	Am. Literature, .....a 3.	{	General History,.....a 5.	{	Dif. Calculus,.....a 5.
9:30	High Algebra,.....a 2.	{	El. of Mechanism,.....a 5.	{	El. Mechanics,.....a 5.
10:30	El. Geology,.....a 5.	{	Anal. Geometry,.....a 5.	{	<i>Military</i> ,b 3.
11:30	General History,.....a 5.	{	Military,.....a 2.	{	Machine Design,.....b 3.
2:00	<i>Military</i> ,b 3.	{	Forging,.....b 3.	{	Machine Shop,.....b 2.
	Forging,.....b 2.	{	Mech. Drawing,.....b 2.		
	Mech. Drawing,.....b 3.				

DOMESTIC ECONOMY COURSE.

8:30	House Sanitation,.....a 2.	{	General History,.....a 5.	{	Entomology,.....a 2.
9:30	Am. Literature, .....a 3.	{	Shakespeare,.....a 5.	{	General Physics,.....a 3, b 2.
10:30	El. Geology,.....a 5.	{	Botany,.....a 3.	{	<i>Physical Culture</i> ,.....b 2.
11:30	General History,.....a 5.	{	Chemistry of Food,.....a 2.	{	Adv. Physiology,.....a 5.
2:00	<i>Physical Culture</i> ,.....b 2.	{	<i>Physical Culture</i> ,.....b 2.	{	Entomology,.....b 3.
3:00	Cooking, .....b 2.	{	Botany,.....b 3.		
		{	Chemistry,.....b 2.		

LITERATURE AND ART COURSE.

8:30	Am. Literature,.....a 3.	{	General History,.....a 5.	{	<i>Art or Music</i> ,.....b 5.
9:30	El. Geology,.....a 5.	{	Shakespeare,.....a 5.	{	General Physics,.....a 3, b 2.
10:30	Gen. History, .....a 5.	{	<i>Physical Culture</i> ,.....b 2.	{	<i>Physical Culture</i> ,.....b 2.
11:30	<i>Physical Culture</i> ,.....b 2.	{	Art or Music,.....b 5.	{	Adv. Physiology,.....a 5.
2:00	Art or Music,.....b 5.				18th Cen. Eng. Lit.,...a 5.
3:00					

Junior Year.

PRACTICAL, AGRICULTURAL COURSE.

Fall.

8:30	Domestic Dairyng, . . . b 5.
9:30	
10:30	Advanced Geology, . . . a 5.
11:30	Oratory, a 1.
2:00	Ag. Chemistry, . . a 3, b 2.
3:00	Theo. Horticulture, . . . a 3.

Winter.

	{ Stock Feeding, a 5.
	American History, . . . a 5.
	Oratory, a 1.
	{ Soil Fertility, a 3.
	Plant Evolution, a 2.

Spring.

	{ Forestry, a 3.
	Landscape Gard'ning, a 2.
	Stock Breeding, a 5.
	Oratory, a 1.
	{ Astronomy, a 5.

SCIENTIFIC AGRICULTURAL COURSE.

8:30	French or Latin, a 5.
9:30	German, a 5.
10:30	Advanced Geology, . . . a 5.
11:30	Oratory a 1.
2:00	Ag. Chemistry, . . . a 3 b 2.
	French or Latin, a 5.
	Stock Breeding, a 5.
	German, a 5.
	Oratory, a 1.
	Astronomy, a 5.

MECHANICAL, ENGINEERING COURSE.

8:30	French, a 5.
9:30	Physics, a 3, b 2.
10:30	Int. Calculus, a 3.
11:30	Oratory, a 1.
2:00	Machine Design, b 2.
	Machine Shop, b 3.
	French, a 5.
	{ Physical Laboratory, b 2.
	Anal. Mechanics, a 3.
	Physics, a 3.
	Oratory, a 1.
	Physical Laboratory, b 2.
	Kinematics, b 3.
	Astronomy, a 5.

Junior Year--Continued.

ELECTRICAL ENGINEERING COURSE.

8:30	French,.....a 5.	French,.....a 5.
9:30	Physics,.....a 3, b 2.	{ Electrical Laboratory, b 2.
10:30	Int. Calculus,.....a 3.	{ Anal. Mechanics,.....a 3.
11:30	Oratory,.....a 1.	{ Elect. & Magnetism,.....a 1.
2:00	Machine Design,.....b 2.	{ Oratory,.....a 1.
	Machine Shop,.....b 3.	{ Astronomy,.....a 5.

AGRICULTURAL ENGINEERING.

8:30	French,.....a 5.	French,.....a 5.
9:30	Building Construction, a 5.	Anal. Mechanics,.....a 3.
10:30	Int. Calculus,.....a 3.	Hydromechanics,.....a 5.
11:30	Oratory,.....a 1.	Oratory,.....a 1.
2:00	Arch. Drawing,.....b 5.	Astronomy,.....a 5.

DOMESTIC ECONOMY COURSE.

8:30	French or Latin,.....a 5.	French or Latin.....a 5.
9:30	German,.....a 5.	Art or Music,.....b 5.
10:30	Advanced Geology,.....a 5.	German,.....a 5.
11:30	Oratory,.....a 1.	Oratory,.....a 1.
2:00	Sewing,.....b 3.	{ Astronomy,.....a 5.
	Wood Carving,.....b 2.	

LITERATURE AND ART COURSE.

8:30	French or Latin,.....a 5.	French or Latin,.....a 5.
9:30	German,.....a 5.	19th Cen. Eng. Lit.,...a 5.
10:30	Advanced Geology,.....a 5.	German,.....a 5.
11:30	Oratory,.....a 1.	Oratory,.....a 1.
2:00	18th Cen. Eng. Lit.,...a 5.	Astronomy,.....a 5.

Senior Year.

PRACTICAL, AGRICULTURAL COURSE.

Fall.		Winter.	Spring.
8:30	Const. Law,.....a 5	Ag. Experiments,....b 3.	Bacteriology,.....a 3.
9:30	El. Psychology, .....a 3.	{ Economic Theory.....a 5.	{ Ethics,.....a 3.
10:30			{ Bacteriology,.....b 2.
11:30	Military Lectures,.....a 1.	Eq'pt. Stock Farm,....a 5.	General Agriculture, a 3.
2:00			Horticultural Exp.,...b 2.
3:00	Vet. Medicine, .....a 5.		

SCIENTIFIC AGRICULTURAL COURSE.

8:30	Const. Law,.....a 5.	Ag. Experiments,....b 3.	Bacteriology,.....a 3.
9:30	El. Psychology,.....a 3.	French,.....a 5.	German,.....a 5.
10:30	German or Latin,.....a 5	{ Economic Theory,....a 5.	{ Ethics,.....a 3.
11:30	Military Lectures,.....a 1.		{ Bacteriology, .....b 2.
2:00	French, .....a 5.	German or Latin,....a 5.	French or Latin,.....a 5.
3:00	Vet. Medicine, .....a 5.		

ELECTRICAL ENGINEERING COURSE.

8:30	Steam Engineering,..a 5.	{ Dynamo El. Mach.,...a 3.	{ Electrical Laboratory, b 2.
9:30	El. Laboratory,.....b 2.		
	El. Psychology,.....a 3.	{ Economic Theory,....a 5.	{ Ethics, .....a 3.
10:30	Dynamo El. Mach.,...a 3.		
11:30	Military Lectures,.....a 1.	Dynamo Design,....b 2.	Des. of Power Station, b 3.
2:00	Dynamo Design.....b 5.		

Senior Year--Continued.

MECHANICAL, ENGINEERING COURSE.

8:30	Steam Engineering, . . . a 5.	Strains in Frame Structures, a 5.
9:30	El. Psychology, a 3.	{ Ethics, a 3.
10:30		{ Strength of Material, a 2.
11:30	Military Lectures, a 1.	
2:00	Eng. Design, b 5.	

AGRICULTURAL, ENGINEERING COURSE.

8:30	Psychology, a 3.	Strains Frame Struc., a 5.
9:30	Farm Engineering, . . . a 3.	Superintendency, . . . a 5.
10:30	Military Lectures, . . . a 1.	
2:00	Practical Design, . . . b 5.	

DOMESTIC ECONOMY COURSE.

8:30	Const. Law, a 5.	
9:30	Home Architect, a 2.	{ German, a 5.
10:30	Psychology, a 3.	{ Ethics, a 3.
11:30	German or Latin, . . . a 5.	Lectures,
2:00	Lectures,	French or Latin, . . . a 5.
3:00	French, a 5.	<i>Art or Music</i> , b 5.

LITERATURE AND ART COURSE.

8:30	Const. Law, a 5.	Art or Music, b 5.
9:30	Psychology, a 3.	{ German, a 5.
10:30	Eng. Lit. 19th Cent. . . a 2.	{ Chaucer, a 2.
11:30	German or Latin, . . . a 5.	{ Ethics, a 3.
2:00	Lectures,	Chaucer, a 3.
3:00	French, a 5.	French or Latin, . . . a 5.

Description of Work.

Department of Agriculture.

Ag.

Students may select a Major in Agriculture or they may follow either of the courses offered in Agriculture as given on pages 58 to 65. The work is fully illustrated and made practical by operations of a large stock farm used to maintain specimen animals and illustrate the best methods of managing stock farms and of feeding live stock.

Eleven breeds of cattle, sheep and swine numbering in all about one hundred twenty-five animals are kept to illustrate types of animals suited to special purposes. These types illustrate dairy and beef breeds of cattle, mutton breeds of sheep, and various types of swine suited to special conditions. They afford the student an opportunity to observe the practical methods of feeding and management. The policy in equipping the farm has been to procure as great a diversity of implements and appliances as is consistent with economical management, so as to give the student opportunity to observe points of merit in each machine.

The various laboratories, literature and experiments connected with the Agricultural Experiment Station also afford excellent opportunity to study soil treatment, plant culture and farm management. The aim in this as in all other departments is to give the student practical as well as theoretical information and experience. The following work is offered:

Burnett.

1 W.—Breeds of Live Stock, a 4, b 1. 10:30-11:30. Cr.

a, Characteristics of various breeds of live stock, their adaptability to special locations for special purposes. Methods of breeding and selection pursued in the development of each breed. All breeds are studied in their relation to types, and much importance is placed on actual test as a guarantee

of merit. Extension and economic development of different branches of live stock industry.

Curtis's Cattle, Horses, Sheep and Swine.

Numerous books of reference.

2 F. or W.—Domestic Dairying, b 5. 8:30-10:30. Cr.

b, Care and Manipulation of milk, manufacture of butter, approved dairy methods in care of utensils, proper regulations of herds, stable methods, fancy butter making discussed and practiced.

Wing's Milk and its Products.

Gunter's American Dairying.

3 W.—Stock Feeding, a 5. 8:30-9:30. Cr.
Pre. 2.

a, Laws of nutrition and waste of the body under labor or at rest, the income and expenditure of energy, composition of the body and of food consumed to produce the most economical result. Scientific feeding and balanced rations for large production of dairy or meat products, finishing animals for market and care and management of live stock.

W. A. Henry's Feeds and Feeding.

Numerous books of reference.

4 S.—Stock Breeding, a 5. 9:30-10:30. Cr.
Pre. 2 and Zo. 1.

a, Lectures and references to original research on the laws of reproduction as influenced by variation, selection and heredity. The effects of environment, use and disuse, crossing, and in-breeding in relation to their effects on variation and heredity, methods of selection to perfect types and secure prepotency.

Miles' Stock Breeding and other books of reference.

5 W.—Equipment of Stock Farms, a 5. 2:00-3:00. Cr.

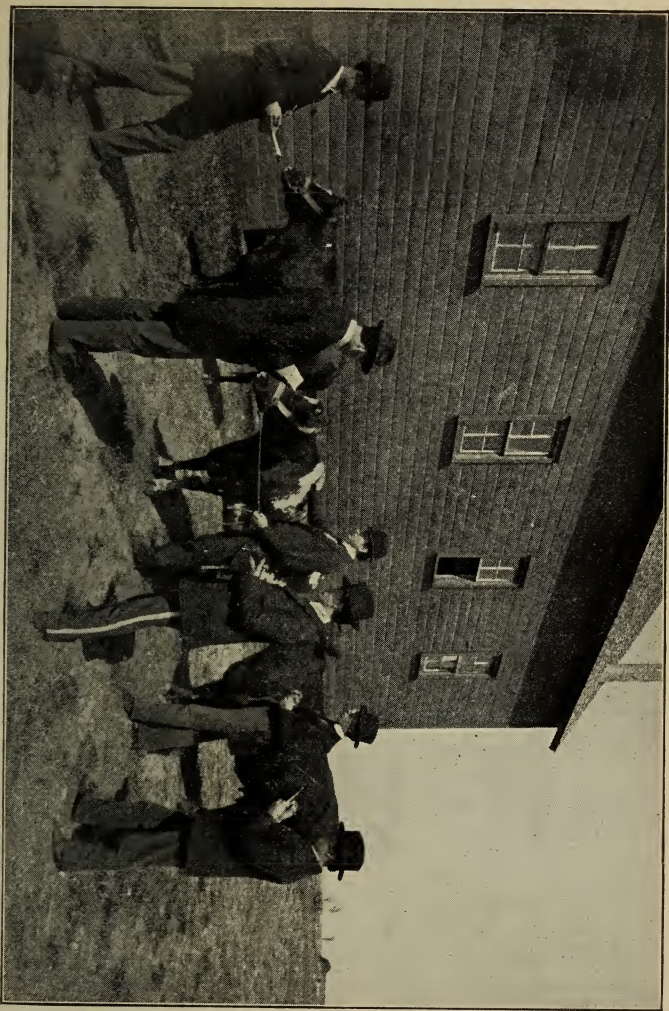
a, Adaptability of individuals and localities to different branches of stock production, depending on natural fertility, crop production, water supply and markets, management of dairy farms, the maintenance of sheep and cattle ranches, stock to consume residues and growing and furnishing of animals for market, construction and arrangement of barns and other buildings from economic and sanitary standpoints.

- 6 S.—General Agriculture, a 3. 2:00-3:00. Cr.
- a, Lectures on practical and Theoretical Agriculture.
Outlines of best Literature, etc.
Chilcott.
- 7 F.—Soil Physics, { a 2. 8:30-9:30. } R. 93, S.
 { b 3. 2:00-4:00. }
- Pre. Gl. 1 and Ag. 1.
- a, Physical properties of soils, supply of food to the growing plant, soil moisture, soil temperature, tillage, nitrification and fertilizers.
King's Soils.
- b, Microscopic examination of soils, mechanical analysis by "beaker method," determination of organic matter, capillary effects upon soil of the application of direct and indirect manures.
- 8 W.—Soil Fertility, a 3. 2:00-3:00. R. 93, S.
Pre. 2.
- a, A study of manures and manuring. Nitrification, leguminous crops for green manuring. Conservation of fertility by rotation of crops. Economic sources of the elements of fertility.
Aikman's Manures and Manuring.
- 9 W.—Agricultural Experimentation, b 3. 8:30-10:30, R. 93, S.
Pre. 1, 2, 3 & 4.
- b, A general study of experimental work as pursued by the experiment stations of this country, study of the bulletins and reports of the various stations and a comparison of their results and methods.
Experiment Station Record. U. S. Department of Agriculture and Experiment Station publications.

SHORT COURSE IN AGRICULTURE.

(From Jan. 3 to Mar. 28, 1900.)

An arrangement of certain short courses in Winter Term designed to be taken by farmers or farmers' sons who for any reason are unable to take more extended work. To such students this work will be as valuable and should become as pop



ular as the special dairy work. The work consists of the following courses, upon completion of which students will be given a certificate.

Dy. 1. General Agriculture and Care Dairy Cows, a 5.	8:30. Cr.
Dy. 2. Dairy Lectures, a 5.	9:30. Cr.
Dy. 3. Dairy Arithmetic, a 3.	10:30. Cr.
Dy. 4. Lectures in Botany, Entomology, Zoology, a 3.	11:30.
Dy. 7. Dairy Practice, b 3.	2:00. Cr.
Ag. S. Elective Laboratory, b 2.	2:00.

COURSE IN DAIRY SCIENCE.

(Twelve Week's Course Jan. 3 to March 28, 1900.)

In response to popular demand for instruction in Dairy Science, resulting from the rapid growth and importance of the industry in the state, the college has for some years maintained facilities for this instruction. The work combines in a proper degree, theoretical and practical methods. A new creamery will be constructed on the college campus during the summer of 1899. This will be thoroughly furnished and fitted with the most modern appliances for making butter and cheese and for testing and sterilizing milk.

Students if possible should have previous experience in creamery practice and as the number of students which can be accommodated is limited, the application of those who have had some experience will be given the preference. A satisfactory completion of the work offered entitles the student to a certificate of competency as helper and after four months in this capacity, on the recommendation of his creamery manager, he may receive an advanced certificate as competent to operate a creamery.

The following work is offered, viz:

Dy. 1. Gen. Agriculture and Cr. Dairy Cows, a 5.	8:30. Cr.
Dy. 2. Dairy Lectures, a 5.	9:30. Cr.
Dy. 3. Dairy Arithmetic, a 3,	10:30. Cr.

Dy. 5. Dairy Engineering, a 2.	10:30. M.
Dy. 4. Lectures in Botany, Ent. and Zoology, a 3.	11:30.
Pr. 4. Book Keeping, a 3.	2:00. 100 S.
Dy. 7. Creamery Practice, (daily)	3:00. Cr.

HOME READING COURSE.

The college aims to reach and interest farmers in their homes. It offers instruction by correspondence to those who will read such books as are recommended and will send to the college written answers to questions sent out. **Five** distinct courses are offered in this way and it is certainly a rare opportunity for self improvement. Those who desire a circular giving these courses and the method of procedure should write the President of the college for same.

FARMERS' INSTITUTES.

The college carries its instruction to the homes of farmers by a system of institutes which it conducts during the winter months. These are arranged where communities express a desire for such a meeting and will do sufficient advertising to insure a fair attendance. The institutes are interesting and instructive, dealing with such problems as are of local importance and have a scientific bearing. Communications about institutes should be addressed to "Director of Farmers' Institutes," Brookings, S. D.

The Agricultural Experiment Station.

Ex.

This department of the college is well provided with land, laboratories, appliances and funds. About sixty acres of the college farm is set aside for special experiments in crops and soil moisture determinations. The Horticultural experiments cover another sixty acres with trees, shrubs and other exper-

ments. A three story brick building is devoted almost entirely to the laboratory work of the station. The station has a corps of trained and experienced scientists constantly at work to discover new scientific truth and find its application to the industrial processes. More than sixty bulletins giving results of experiments have been issued and distributed among the farmers of the state. All letters of inquiry about experimental work or for bulletins, should be addressed to "Director of Experiment Station," Brookings, S. D.

STATION STAFF FOR 1899-1900.

Wm. H. Shepard, Director,	.....Chemist
E. C. Chilcott, Vice-Director,	.....Agriculturist
D. A. Saunders,	.....Botanist and Entomologist
E. L. Moore,	.....Zoologist
N. E. Hansen,	.....Horticulturist
E. A. Burnett,	.....Animal Husbandry

ASSISTANTS.

A. B. Holm,	.....Agriculture
V. H. Knox,	.....Chemistry
V. S. Thornber,	.....Botany and Horticulture
A. M. Allen,	.....Secretary and Accountant

Any farmer of the state can have the bulletins of this station free upon application to the director.

Department of Horticulture and Forestry.

Ho.

In the regular college work these subjects are taught as an applied science as well as an art, full use being made of the student's attainments in the sciences underlying the practice of Horticulture. The variation of cultivated plants, and the principles and methods of their development under the

hand of man, are considered, as well as their propagation and cultivation.

The commercial nursery course is intended as a short winter course for those desiring to engage in the business of growing trees and plants for sale, especially trees adapted to prairie conditions. Special stress is laid upon practical work in the grafting room. No examination is required for entrance to this short course.

Field and laboratory exercises emphasize the lessons taught in the class room. Ample facilities for practical illustration are afforded by the eighty acres of experiment station horticultural grounds and college campus, including the orchards, forestry plantations, arboretum, nursery, vegetable gardens, small fruit plantations, flower borders and ornamental grounds. The horticultural building contains class room, laboratory, conservatory and forcing house, grafting and potting rooms, storage cellars, a garden herbarium and museum.

Students desiring to make Horticulture their major subject should take courses 3-9 inclusive, and course 6 in agriculture. Students desiring to take a minor in horticulture should take courses 3-6 inclusive, and either 7 or 9.

The following work is offered:

Hansen.

- 1 W.—Elements of Horticulture, a 2. 8:30-9:30
- a, Propagation and management of fruit and ornamental trees and plants with special reference to prairie conditions, cultivation of vegetables and the construction of hotbeds and greenhouses, floriculture and home gardening.
Lectures, Green's Amateur Fruit Growing and Vegetable Gardening.
- 2 S.—Elements of Horticulture, b 2. 2:00-4:00
Pre. 1.
- b, Continuation of course 1. Laboratory and field practice in greenhouse, grafting room and garden.
- 3 F.—Theory of Horticulture, a 3. 3:00-4:00
Pre. 1, 2.



- a, Lectures on the theory of gardening operations. The relationship and physiology of plants from an horticultural standpoint.
- 4 W.—Evolution of Cultivated Plants, a 2. 2:00-3:00
Pre. 1, 2 & 3.
- a, The variation of plants under the hand of man. The modification and amelioration of plants by cultivation, soil, climate, selection and hybridization.
Lectures, Bailey's Plant Breeding and Survival of the Unlike.
- 5 S.—Forestry, a 3. 8:30-9:30
- a, Principles of forestry, the influence of forests on climate, timber planting on prairies, European forestry methods as affected by prairie conditions, shelter belts, the propagation, cultivation, characteristics and uses of forest trees.
Lectures, Green's Forestry in Minnesota.
- 6 S.—Landscape Gardening, a 2. 8:30-9:30
- a, Lectures on the beautiful in nature, gardening as one of the fine arts, historical development of the ancient or geometric, and the modern or natural styles, best ornamental trees, shrubs and plants; hedges, lawn making, walks and drives. Illustrated with several hundred photographic views from different parts of America and Europe.
- 7 F.—German Horticultural Literature, a 5. 2:00-3:00
Pre. 1, 6 and the first three terms of German.
- a, The reading of German books on Horticulture.
- 8 W.—German Horticultural Literature, a 5. 9:30-10:30
Pre. course 7.
- a, Continuation of course 7. The reading of current German horticultural periodicals.
- 9 F., W. or S.—Horticultural Investigation, b 5. 2:00-4:00
Pre. 1, 6.
- b, Investigation in some special line.
- 10 S.—Horticultural Experimentation, b 2. 2:00-4:00
Pre. 1, 6.
- b, Laboratory and field studies in experimental Horticulture.

SHORT COURSE IN HORTICULTURE.—(From Jan. 3 to March 28, 1900.) Special Commercial Nursery Course.—Lectures and practical work in commercial propagation and nursery management of fruit trees, small fruits, forest trees, ornamental trees, shrubs and plants, grafting, budding, pruning, cutting scions, packing grafts, making cuttings and stratifying seeds. All of Every Day.

Lectures, Bailey's Nursery Book. Goff's Principles of Plant Culture. Green's Amateur Fruit Growing and Forestry in Minnesota.

Department of Botany.

Bt.

The work in Botany is arranged to give the student a thorough knowledge of plant life. The department occupies the second floor of the South Building, having an office, lecture room, herbarium and laboratory. It is provided with all the apparatus necessary for biological work including microtome, microscopes and physiological apparatus.

Saunders, D. A.

1 F.—Elementary Botany, { a 2. 2:00-3:00. } R. 98, S.
 b 3. 2:00-4:00. }

a, A general introduction to Botany, the structure and function of protoplasm, a brief study of some of the principles of plant economy and the life history of some important groups of microscopic plants, introduction to the structure of the flowering plants.

b, Demonstrations of (a.)

Atkinson's Elementary Botany with lectures.

2 S.—Systematic Botany, { a 3. 8:30-9:30. } R. 98, S.
 b 2. 2:00-4:00. }

Pre. Bt. 1.

a, The relationship of ferns and flowering plants.

- b, The collecting, analyzing, naming and mounting of an herbarium of one hundred plants.
Gray's Lessons and Manual of Botany.
- 3 F.—Cryptogamic Botany, $\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right. \begin{array}{l} 8:30-9:30 \\ 2:00-4:00 \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right\}} \right\} \text{R. } 98, \text{ S.}$
Pre. Bt, 1 & 2.
- a, Structure and life history of type specimens of the lower plants from the bacteria to the ferns, a study of the fungi destructive to farm and garden crops.
- b, Laboratory work covering topics in (a.)
Bessey's Essentials of Botany.
- 4 W.—Ferns & Flowering Plants. $\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right. \begin{array}{l} 10:30-11:30. \\ 2:00-4:00. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right\}} \right\} \text{R. } 98, \text{ S.}$
Pre. Bt. 1 & 2.
- a, History and Physiology. A study of the minute tissues of the higher plants.
- b, The solving of physiological problems by experimentation.
Bessey's Botany and Lectures.
- 5 W.—Pharmacognosy, $\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right. \begin{array}{l} 9:30-10:30. \\ 9:30-11:30. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right\}} \right\} \text{R. } 98, \text{ S.}$
Pre. Bt. 1 & 2.
- a, Families of medicinal plants, the histology of the important drugs, study of the glands, reservoirs or receptacles of the essential parts of the drugs.
- b, Demonstrations of (a.)
Sayer's Organic Materia Medica and Pharmacognosy.
- 6 S.—Pharmacognosy, $\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right. \begin{array}{l} 8:30-9:30. \\ 2:00-4:00. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right\}} \right\} \text{R. } 98, \text{ S.}$
Pre. 5.
- a, Continuation of 5.
- b, Demonstration of (a.)
Sayer's Organic Materia Medica and Pharmacognosy.
- 7 S.—Systematic Bot. & Ecology, $\left\{ \begin{array}{l} \text{a } 3. \\ \text{b } 2. \end{array} \right. \begin{array}{l} 8:30-9:30. \\ 2:00-4:00. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a } 3. \\ \text{b } 2. \end{array} \right\}} \right\} \text{R. } 98, \text{ S.}$
Pre. 1, 2, 3 & 4.
- a, The principal families of flowering plants, their distribu-

tion and relationship, lectures on relation of the plant to its environment.

b, Demonstrations of (a.)

- 8 F.—Embr'y & Phytopal'ogy, $\left\{ \begin{array}{l} \text{a 2.} \\ \text{b 3.} \end{array} \right.$ $\left. \begin{array}{l} 9:30-10:30. \\ 2:00- 4:00. \end{array} \right\}$ R. 98, S.
Pre. 1, 2, 3 & 4.

a, A study of the life history of some plant, lectures in fossil botany.

b, Demonstrations of (a.)

- 9 W.—Mycology, $\left\{ \begin{array}{l} \text{a 3.} \\ \text{b 2.} \end{array} \right.$ $\left. \begin{array}{l} 10:30-11:30. \\ 2:00. 4:00. \end{array} \right\}$ R. 98, S.
Pre. 1, 2, 3 & 4.

a, Structure and reproduction of the more important fungi; especial attention will be given to those that are destructive to economic plants.

b, Demonstrations of (a.)

- 10 S.—Entomology, $\left\{ \begin{array}{l} \text{a 2.} \\ \text{b 3.} \end{array} \right.$ $\left. \begin{array}{l} 8:30-9:30. \\ 3:00-5:00. \end{array} \right\}$ R. 98, S.
Pre. 1 & 2, Zo. 1 & 2.

a, Study of the life history of several type insects, means employed in combatting insects destructive to economic plants.

b, Demonstrations of (a.)

Comstock's Entomology.

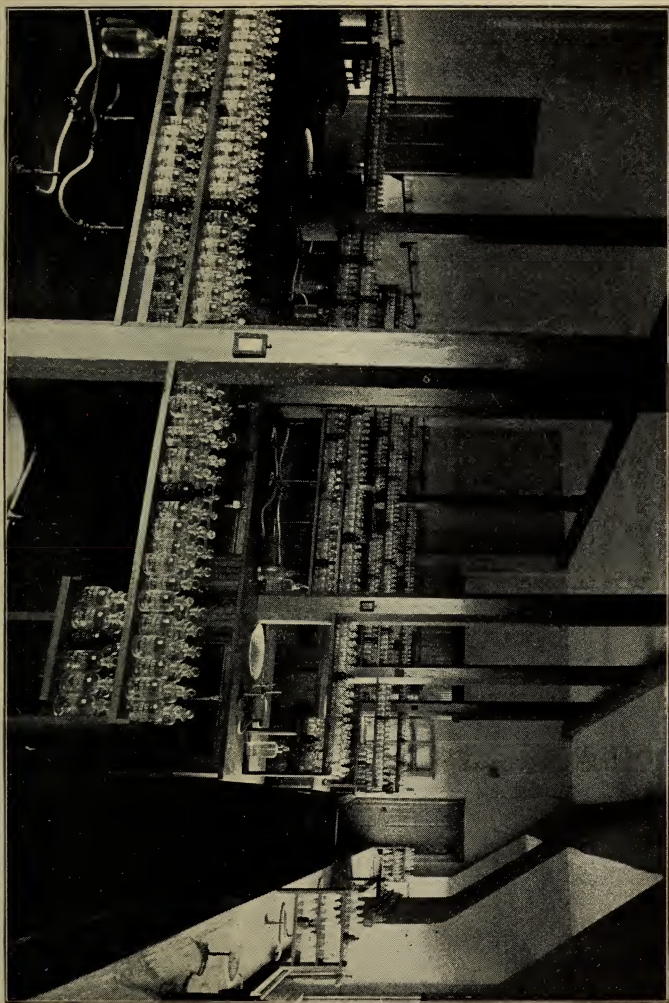
Special W.—Prac. Bot. & Entom'y, a 2. 11:30-12:30. R. 98, S.

Department of Chemistry.

Ch.

The department is equipped with the latest and most approved appliances for instruction.

The student upon beginning the subject is assigned a desk in the main laboratory. This desk is supplied with a set of rea-



gent bottles, gas and water fixtures. In addition to these a supply of all needful apparatus, such as test tubes, generating flasks and the like, is furnished. The main laboratory accommodates from eighty to one hundred students all working at the same time.

Upon completing the necessary elementary work the student now finds a quantitative laboratory at his disposal. This laboratory accommodates twenty students working together. It is supplied with all needful quantitative apparatus such as precipitation flasks, dessicators, lamps and crucibles.

In conjunction with the quantitative laboratory is a balance room supplied with high grade Sartorius quantitative balances. The work is so planned that the student has laboratory work together with didactic instruction throughout the course.

The experiment station laboratories are also located at this college and their costly and technical appliances and the practical work in constant progress there are within reach for instruction.

The following courses are offered:

Shepard.

- 1 **F.—Descriptive Inorganic Chem.** $\left\{ \begin{array}{ll} \text{a 3.} & 8:30-9:30. \text{ R. 46, C.} \\ \text{b 2.} & 8:30-10:30. \text{ R. 47, C.} \end{array} \right.$
Pre. Ph. 2 and Ms. 2.

a, History of chemistry, elements, compounds, symbols, valence, atomic weights, chemical equations, oxygen, hydrogen, nitrogen, chlorine, bromine, fluorine, iodine, sulphur, phosphorus, silicon and their compounds. Bases, salts, acids and alkalies.

b, Detection of the non-metallic elements and their compounds.

Shepard's Elements of Chemistry.

- 2 **W.—Qualitative Inorganic Ch.,** $\left\{ \begin{array}{ll} \text{a 3.} & 2:00-3:00. \text{ R. 46, C.} \\ \text{b 2.} & 2:00-4:00. \text{ R. 47, C.} \end{array} \right.$
Pre. 1.

a, The metals and their compounds. Groups of metals, separation of the metals and uses of their compounds.

- b, Detection of principal metals and the working of a list of unknowns.

Shepard's Elements of Chemistry.

- 3 S.—Elementary Organic Ch., { a 4. 9:30-10:30. R. 46, C
b 1. 2:00- 4:00. R. 47, C
Pre. 2.

- a, The principal classes of organic compounds, the characteristics and properties of each class and the use of their various compounds.

- b, The detection of principal organic compounds.

Shepard's Elementary Organic Chemistry.

- 4 F.—Quantitative Chemistry, { a 1. 2:00-3:00. R. 46, C
b 4. 2:00-4:00. R. 44, C
Pre. 2.

- a, The apparatus and its uses. Explanation of methods of quantitative determinations and reports of students analyses.

- b, The quantitative analysis of typical chemical compounds e.g. calcite, magnesium sulphate and coal. Students will use both the volumetric and gravimetric methods.

Fresenius' Quantitative Chemistry.

- 5 W.—Chemistry of Foods, { a 3. 10:30-11:30. R. 46, C
b 2. 2:00- 4:00. R. 44, C
Pre. 1, 2, 3 & 4.

- a, Study and detection of adulterants in baking powders, milk butter, cereals, spices, fats and other foods.

- b, Determinations of (a.)

- 6 F.—Agricultural Chemistry, { a 3. 2:00-3:00. R. 46, C
b 2. 2:00-4:00. R. 47, C
Pre. 1, 2, 3, 4 & 5.

- a, Chemistry of fertilizers, feed stuffs, fruits, vegetables grasses, dairy products, alcoholic liquors and soils.

- b, Analyses of fertilizers, grasses, dairy products, feed stuffs and soils.

- 7 W.—Physiological Chemistry, { a 1. 2:00-3:00. R. 46, C
b 4. 2:00-4:00. R. 47, C
Pre. 3, 4 & Zo. 1, 2 & 3.

- a, Composition of blood, muscle, urine, albumen, fat, bone

gall, liver, and products of the glands.

b, Quantitative determinations of (a.)

8 S.—Industrial Chemistry, b 3.

2:00-4:00. R. 47, C.

Pre. 3 & 4.

b, Chemistry of manufacturing glass, paper, sugar, petroleum, explosives, acids, water, air, mortars, pigments, photography, alkalies and gases. Demonstrations of examples including water pollution, purification, artificial illumination, petroleum testing, fermentation, air contamination, disinfection, ventilation, bleaches, and dyeing.

9 F.—Organic Analysis, $\begin{cases} \text{a 1.} \\ \text{b 2.} \end{cases}$

2:00-3:00. R. 46, C.

2:00-4:00. R. 47, C.

Pre. 3 & 4.

a, Physical properties of organic compounds, the general relations existing between classes of compounds and the transformation from one class into another.

b, Demonstration of (a.)

Department of Geology and Agronomy.

Gl.

In offering the work of this department two objects are sought. First, to give all the candidates for B. S. degree a thorough understanding of the foundation principles of the subject. Second, to afford an opportunity for students desiring to become specialists along any line of agriculture, to make a thorough study of the soil, its relations to plant growth and crop production. The basis of all work is Physical Geography which is required as a preparatory study. Especial effort is made in courses 1 and 3 to train the student in habits of close observation of the various common natural phenomena and to acquaint them with the geological history, climatic conditions and natural resources of the state as well as to give a general knowledge of Geology. Advantage is taken of the collections

of geological specimens in the study of the earth's formation, as well as of the various charts, globes and other instruments belonging to this and other departments, available for instructional purposes.

Students upon completing course 1 may elect the work in soil physics and kindred subjects, this work is available to those making agriculture their major. The various laboratories, literature and work of the Experiment Station is taken advantage of as illustrative of modern methods in conducting work along these lines. In this as in other departments ample latitude is given the student to specialize in the work best suited to his tastes, training and needs.

The following courses are offered:

Chilcott.

1 F.—Elementary Geology, a 5. 9:30-10:30. R. 93, S

a, Introduction to structural, dynamic and strateographic Geology. Lectures illustrated by the stereoptican.

Tarr's Elementary Geology.

**2 F.—Soil Physics, { a 2. 8:30-9:30 }
 { b 3. 2:00-4:00 } R. 93, S**
Pre. 1.

a, Physical properties of soils, supply of food to the growing plant, soil moisture, soil temperature, tillage, nitrification and fertilizers.

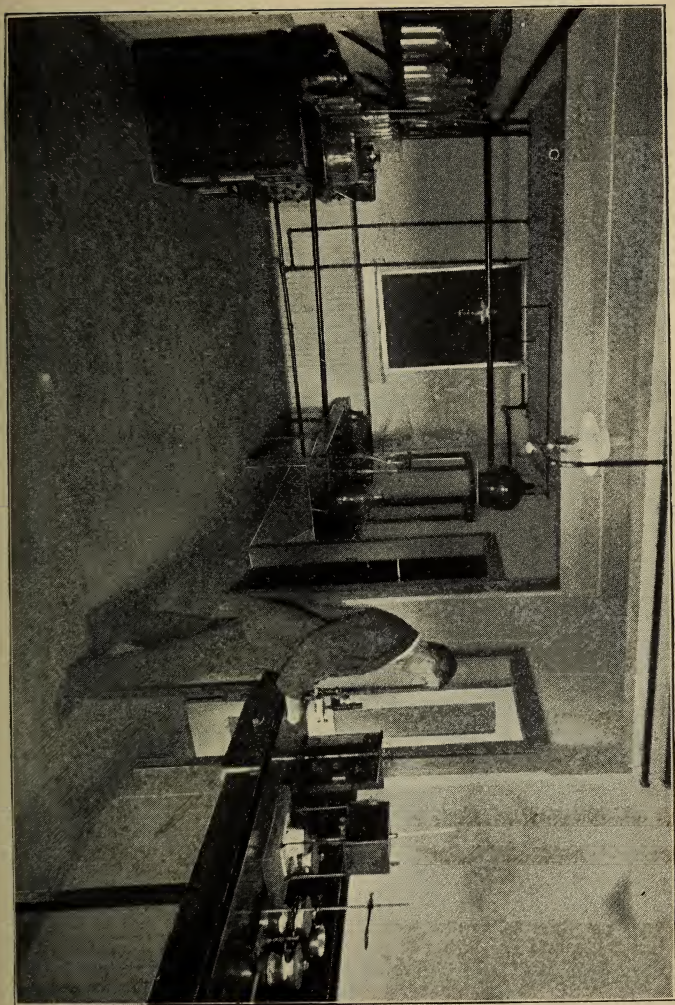
b, Microscopic examination of soils, mechanical analysis by "beaker method." Determination of organic matter, capillary effects upon the soil of the application of direct and indirect manures.

King's Soils.

3 F.—Geology, a 5. 10:30-11:30. R. 93, S
Pre. 1.

a, Geological ages, stratified, igneous and sedimentary rocks crystallography, dip, folds, cleavage, volcanoes, rivers, glaciers, erosion and deposition.

LeConte's Elements of Geology.



- 4 W.—Soil Fertility, a 3. 2:00-3:00. R. 93, S. Pre. 2.
- a. A study of manures and manuring. Nitrification, leguminous crops for green manuring. Conservation of fertility by rotation of crops. Economic sources of the elements of fertility.
Aikman's Manures and Manuring.
- 5 W.—Agricultural Experimentation, b 3. 8:30-10:30. R. 93, S. Pre. 1, 2, 3 & 4.
- b. A general study of experimental work as pursued by the experiment stations of this country, study of the bulletins and reports of the various stations and a comparison of their results and methods.
Experiment Station Record. U. S. Department of Agriculture and Experiment Station publications.

Department of Zoology and Veterinary Medicine.
Zo.

The work in this department is offered consecutively. Recent biological discoveries are given special consideration. The lecture room and laboratories are well supplied with water and gas. The equipment includes microscopes, dissecting instruments, sliding microtome, imbedding apparatus, thermostat incubator, autoclave, sterilizers, fossils, models and charts. The subsequent courses are descriptive of the work offered:

Moore.

- 1 S.—Elementary Zoology, { a 4. 10:30-11-30. } R. 100, S.
 { b 1. 10:30-12-30. }
- Pre. Ar. 1.
- a, Discussion of types of branches and classes of animals.

- b, Dissection of typical invertebrates and vertebrates.
Text book to be announced.

- 2 W.—Advanced Zoology, $\left\{ \begin{array}{l} \text{a 4.} \\ \text{b 1.} \end{array} \right. \begin{array}{l} 8:30-9:30. \\ 2:00-4:00. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a 4.} \\ \text{b 1.} \end{array} \right\}} \right\} \text{R. 100, S.}$
Pre. 1, Ph. 2 & Ch. 2.

- a, Discussion of the development, the principles of classification and comparative anatomy of animals.

- b, Dissection of invertebrates and vertebrates.

- 3 F.—Anatomical Methods, $\left\{ \begin{array}{l} \text{a 2.} \\ \text{b 3.} \end{array} \right. \begin{array}{l} 9:30-10:30. \\ 2:00-4:00. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a 2.} \\ \text{b 3.} \end{array} \right\}} \right\} \text{R. 100, S.}$
Pre. Pr. 12, Zo. 1.

- a, Facts of general morphology, osteology and orthology.

- b, Dissections.

- 4 W.—Anatomical Methods, $\left\{ \begin{array}{l} \text{a 3.} \\ \text{b 2.} \end{array} \right. \begin{array}{l} 10:30-11:30. \\ 2:00-4:00. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a 3.} \\ \text{b 2.} \end{array} \right\}} \right\} \text{R. 100, S.}$
Pre. Zo. 3.

- a, Splanchnology and Myology.

- b, Dissections.

- 5 S.—Anatomical Methods, $\left\{ \begin{array}{l} \text{a 2.} \\ \text{b 3.} \end{array} \right. \begin{array}{l} 9:30-10:30. \\ 2:00-4:00. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a 2.} \\ \text{b 3.} \end{array} \right\}} \right\} \text{R. 100, S.}$
Pre. Zo. 4.

- a, Augiology and Neurology.

- b, Dissections.

- 6 **S.—Advanced Physiology**, a 5. 2:00-3:00. R. 100, S.
Pre. 1, Ph. 2 & Ch. 2.

- a, The principles of Animal Physiology with demonstrations and experiments.

Thornton's Physiology.

- 7 F.—Veterinary Medicine, a 5. 3:00-4:00. R. 100, S.
Pr. 12, Zo. 3, 4, 5 & 6 and Ph. 4, 5 & 6, can with advantage be taken before Zo. 7.

- a, Diseases of the respiratory and digestive systems.

-
- 8 W.—Veterinary Medicine, a 5. 2:00-3:00. R. 100, S.
Pre. Zo. 7.
- a, Diseases of the skin and locomotory apparatus.
- 9 S.—Veterinary Medicine, a 5. 2:00-3:00. R. 100, S.
Pre. Zo. 8.
- a, Contagious and infectious diseases, their symptoms and treatment, special reference to their eradication and control.
- 10 W.—Veterinary Medicine, a 3. 11:30-12:30. R. 100, S.
- a, This course is designed to meet the requirements of those students taking the short courses in Agriculture and Dairying, and will include a discussion of the more important diseases of farm animals.
- 11 S.—Bacteriology, $\left\{ \begin{array}{l} \text{a 1.} \\ \text{b 2.} \end{array} \right. \begin{array}{l} 8:30-9:30. \\ 10:30-12:30. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a 1.} \\ \text{b 2.} \end{array} \right\}} \right\} \text{R. 100, S.}$
- a, Bacteriological methods, the principles of sterilization, preparation of culture media, making and examining cultures, etc.
- b, Laboratory.
- Sternberg's Bacteriology.
Abbott's Bacteriology.
Moore's Laboratory Directions for Beginners in Bacteriology.
-

Department of Languages.

Ln.

In offering increased work in language, the institution supplies a deficiency which has for some time been recognized. The student pursuing work along scientific or technical lines is virtually compelled to have some knowledge of either Ger-

man or French, while the importance of Latin is recognized by almost every one.

The two years should be consecutive in whatever language the student elects. In such technical "majors" as architecture or engineering, French is advised, in most of the natural or biological sciences German will be found preferable, while in the more literary work Latin is the most appropriate.

The following work in Latin, German and French is offered, viz:

Du Bois.

LATIN.

- 1 **F.—Latin**, a 5.
Pre. Eh. 3.

8:30-9:30. R. 5, C.

- a, Declension and conjugation endings, translation and construction of easy sentences, command of vocabulary necessary for reading Cæsar.
Bellum Helveticum.

- 2 **W.—Latin**, a 5.
Pre. 1.

8:30-9:30. R. 5, C.

- a, Continuation of 1, more attention to grammar, important rules of syntax carefully studied.
Bellum Helveticum.

- 3 **S.—Latin**, a 5.
Pre. 2.

8:30-9:30. R. 5, C.

- a, Exercises in sight translation. Continuation of syntax and easy latin prose composition.
Vive Romae Illustres.

- 4 **F.—Latin (Caesar,)**—a 5.
Pre. 3.

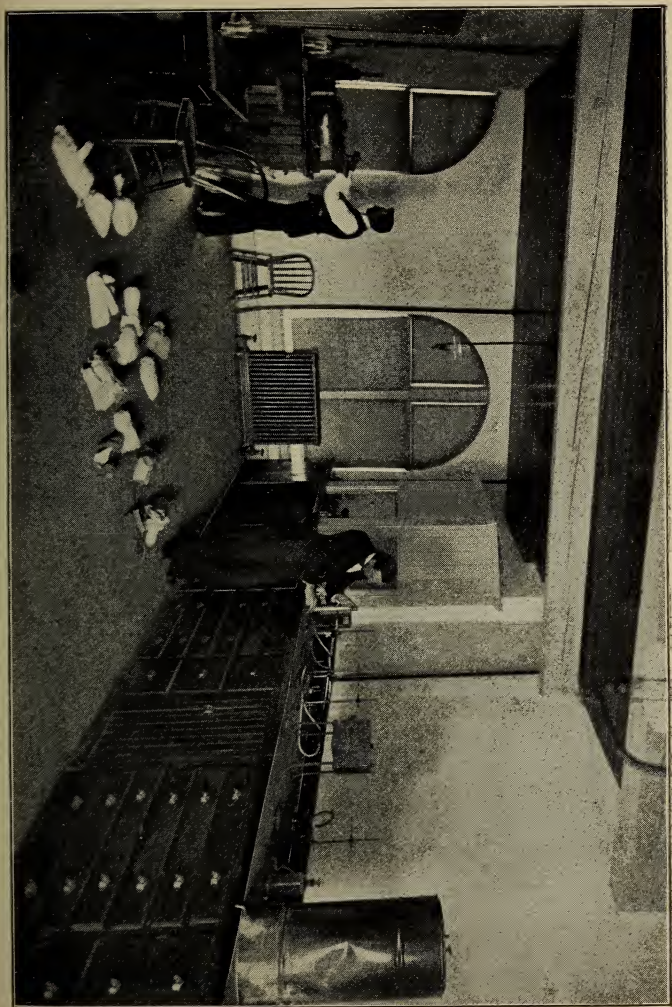
10:30-11:30. R. 5, C.

- a, Selections from Cæsar, thorough study of Latin Grammar. Arrowsmith's Cæsar.
Allen and Greenough's Latin Grammar.

- 5 **W.—Latin (Virgil,)** a 5.
Pre. 4.

200:-3:00. R. 5, C.

- a, Selections from Virgil read, thorough study of latin gram-



mar continued, different styles of latin poetry critically studied.

- 6 **S.—Latin (Scientific,)** a 5. 2:00-3:00. R. 5, C.
Pre. 5.

a, Study of latin, as a derivative language, latin literature, use in civilization especially in scientific terms.

Wheeler.

GERMAN.

- 7 **F.—German,** a 5. 9:30-10:30. R. 11, C.
Pre. Eh. 3.

a, Introductory course. Elementary grammar, pronunciation, translation from English to German and German to English.

Joynes-Meissner's Grammar.

Guerber's *Marchen und Erzählungen*.

- 8 **W.—German,** a 5. 10:30-11:30. R. 11, C.
Pre. 7.

a, Grammar, reading, translation of easy sentences into German, translation at sight and by ear, dictation and memorizing of selected passages of prose and poetry. Exercises in conversation, translation of selected stories and easy poems.

Storm's *Immensee*.

Dauff's *das Kalte Herz*.

Joynes-Meissner's Grammar.

- 9 **S.—German,** a 5. 10:30-11:30. R. 11, C.
Pre. 8.

a, Continuation of course 8 with special reference to their regular verbs and idiomatic expressions.

Joynes-Meissner's Grammar.

Storm's *Geschichter aus der Towne*.

Hillern's *Hoher als die Kirche*.

Heyse's *L'Arrabhiati*.

Gerstacker *Irrfahrten*.

10 F.—German, a 5. 10:30-11:30. R. 11, C.
Pre. 9.

a, Grammar, derivation and composition of words. A large amount of reading on various topics selected from the works of nineteenth century writers will be done in this course.

Heyse's *Das Madchen von Treppi*.

Riehl's *Der Fluch der Schonheit*.

Hoffman's *Historische Erzahlungen*.

Freytag's *Die Journalisten*.

Baumbach's *Frau Holde*.

Joynes-Meissner's *Grammar*.

11 W.—German, a 5. 2:00-3:00. R. 11, C.
Pre. 10.

a, Grammar, advanced study of syntax, composition, German literature of the classical period. Life and times of Goethe and Schiller.

Joynes-Meissner's *Grammar*.

Selections from Schiller's *Ballads*.

Schiller's *Wilhelm Tell*.

Goethe's *Faust*, Part 1.

12 S.—German, a 5. 9:30-10:30. R. 11, C.
Pre. 11.

a, Course in scientific German designed to familiarize student with the more common terms used in the sciences. Extensive reading and translation, composition.

Dippold's *Scientific German Reader*.

Scientific Monographs.

FRENCH.

13 F.—French, a 5. 8:30-9:30. R. 11, C.
Pre. Eh. 3.

a, Pronunciation and Grammar. Translations of easy English sentences into French. Elementary reading and translation.

Muzzarelli's *French Course*.

Guerbert's *Contes et Legerdes*.

Super's Reader.

- 14 W.—French, a 5.** 8:30-9:30. R. 11, C.
Pre. 13.
a, Pronunciation and grammar, translations into French, translation at sight and by hearing, dictation and memorizing of selections.
Muzzarelli's French Course.
Super's Reader.
Hanely's L'Abbe Constantin.
- 15 S.—French, a 5.** 8:30-9:30. R. 11, C.
a, Grammar continued, idioms and syntax, irregular verbs, reading and composition, translation at sight and by hearing, memorizing, dictation and conversation exercises.
Muzzarelli's French Course.
Fontaine's Fleurs de France.
Verne's Le Tour du Monde en 80 jours.
Grandgent's Composition.
- 16 F.—French, a 5.** 2:00-3:00. R. 11, C.
Pre. 15.
Grammar, composition, reading and translation of a large number of selections drawn from the works of nineteenth century writers.
Muzzarelli's French Course.
Grandgent's Composition.
Selections from Hugo's Les Miserables.
Ermann-Chatrian's Waterloo.
Sarcey's Le Siege de Paris.
Sandeau's Mademoiselle de la Seigliere.
- 17 W.—French, a 5.** 9:30-10:30. R. 11, C.
Pre. 16.
Grammar, composition. Several classical plays will be read and the lives of the most important writers and the customs of the seventeenth century will be discussed.
Corneille's Horace.
Racine's Athalie.
Moliere's Le Bourgeois Gentilhomme.

18 S.—French, a 5.

2:00-3:00. R. 11, C.

Pre. 17.

- a, In this course a large amount of scientific French will be read and selected passages translated.

Luguien's *La Science Populaire*.

Selected Articles.

Department of English Language and Literature.

Eh.

The aim of the work in English is two-fold: First, to secure accurate, vigorous and graceful expression of thought. Second, to cultivate a taste for good literature.

Eyerly.

1 F.—English Words, a 5.

10:30-11:30. R. 25, C.

- a, A study of Anglo-Saxon, Latin, French and Greek derivatives and synonyms. The course is designed to form an intermediate step between grammar and rhetoric, and aims to make the student familiar with the elements entering into the growth and present use of the English language.

Anderson's *Study of English Words*.**2 W.—Rhetoric and Composition, a 5.**

10:30-11:30. R. 25, C.

Pre. 1.

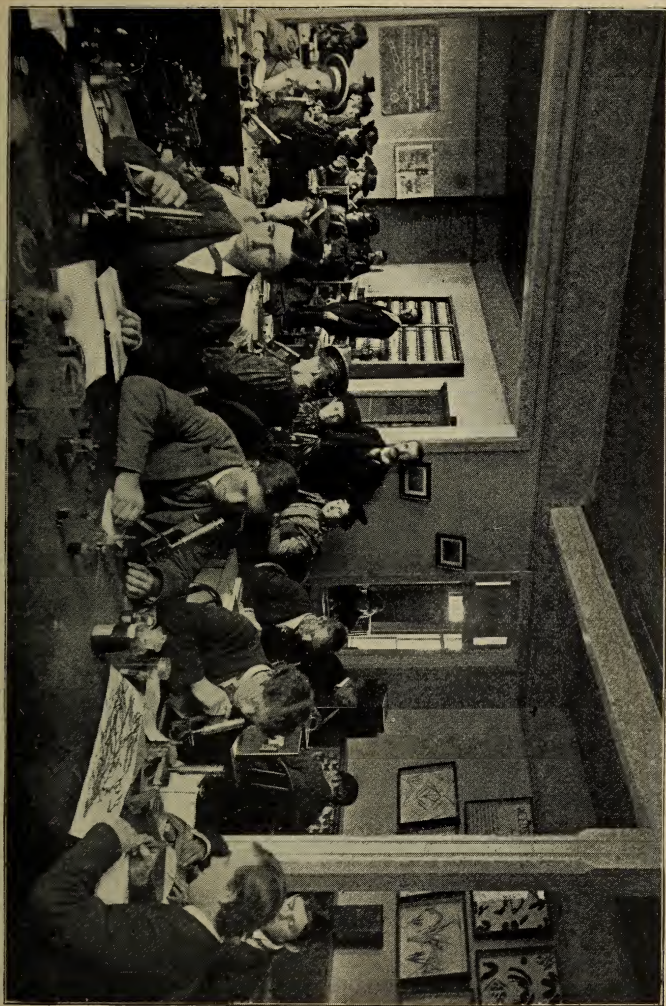
- a, Principles of style conducive to logical, accurate and effective expression of thought; frequent original essays and practical exercises.

Genung's *Outlines of Rhetoric*, Part 1.**3 S.—Rhetoric and Composition, a 5.**

9:30-10:30. R. 25, C.

Pre. 1 & 2.

- a, Continuation of course 2, principles of invention, sentence



structure, paragraph structure, and planning essays. One essay each week.

Genung's Outlines of Rhetoric, Part. II.

- 4 **F.—Literature & Advanced Rhetoric**, a 2. 3:00-4:00. R. 25, C. Pre. 1, 2 & 3.

a, Planning and writing of essays. Study of the principles pertaining to exposition and argumentation. English prose. The student is required to formulate the theme, to make analyses, and study the elements and qualities of style in each of the following: Webster's second "Battle of Bunker Hill" oration, Burke's "On Conciliation with America," Carlyle's "Essay on Burns."

- 5 **W.—Literature & Adv. Rhetoric**, a 3. 8:30-9:30. R. 25, C.

a, Continuation of course 4.

- 6 **S.—American Literature**, a 2. 8:30-9:30. R. 25, C. Pre. 1, 2, 3 & 4.

a, A brief summary of the greater movements in the history of American literature. A study of Lowell, Whittier, Longfellow, Hawthorne, and Emerson. Themes on topics assigned.

Brooke's Primer of American Literature.

Riverside Series of Selections.

- 7 **F.—American Literature**, a 3. 8:30-9:30. R. 25, C.

a, Continuation of course 6.

- 8 **W.—Shakespeare and the Drama**, a 5. 9:30-10:30. R. 25, C. Pre. 7.

a, Plays studied in the class: Merchant of Venice, Macbeth, Hamlet. Lectures on the principles of dramatic literature from the standpoint of character and plot and contrast of classic and romantic dramas. Topics for themes are assigned early in the course and reported upon at the end of the term.

Hudson's School Edition of Shakespeare.

- 9 **F., W. & S.—Oratory & Arg'tion**, a 1. 11:30-12:30. R. 25, C. Pre. 7.

a, This work which counts a full course will continue through-

out the year and will consist of such drill in oratory as the Professor of English may prescribe and such study of master pieces of oratory as he may designate; also the preparation and public delivery of at least three original productions during the year. All candidates for the Bachelors degree are required to take this course and should do so during the Junior year. A Junior contest will be held at the close of the year, for which see 24, Part D.

McEwan's Argumentation and Lectures.

10 S.—English Literature, a 5. 3:00-4:00. R. 25, C. Pre. 6.

a, A study of the lives and works of the poets and prose writers of the eighteenth century. Reading and interpretation of selected writings. Lectures on the customs and literary tendencies of the times, the "club," the development of the essay and novel, and the drama. Frequent exercises in theme writing and criticism. Essay writing.

11 F.—English Literature, a 5. 2:00-3:00. R. 25, C. Pre. 10.

a, Continuation of course 10.

12 W. English Literature, a 5. 2:00-3:00. R. 25, C. Pre. 8.

a, Study of the poets and prose writers of the Elizabethan period. Spencer's works, lectures on the effects of the renaissance, and the drama, reading and interpretation of selections, frequent exercises in theme writing and criticism. Essay work based on assigned reading.

13 S.—English Literature, a 3. 10:30-11:30. R. 25, C. Pre. 8.

a, Study of the lives and works of the prose writers of the nineteenth century, reading and interpretation of selected writings. Lectures on the Romantic Movement, development of the novel, modern tendencies in literature. Frequent exercises in theme writing and criticism, essay writing.

14 F.—English Literature, a 2. 9:30-10:30. R. 25, C. Pre. 13.

a, Continuation of course 13.

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- 15 W.—English Literature, a 3. 11:30-12:30. R. 25, C.
 a, Continuation of course 14.
- 16 S.—Chaucer and the Begin- { a 2. 10:30-11:30. }
 nings of English Literature, { a 3. 11:30-12:30. } R. 25, C.
 Pre. 1, 2, 3, 4, 5 & 6.
- a, Study of the origin and growth of English Literature, reading and interpretation of selections from Chaucer. Lectures on the influence of the Latin and French compositions, effect of customs on the literary productions, etc. Frequent exercises in theme writing and criticism, outside reading and original essay work.
-

Department of History, Economics and Philosophy.

H-P.

The design of the work in History and Economics is to give that information and training which are requisite to intelligent citizenship; to aid the student in acquiring a scientific method of investigation, accumulating and using historic data; to enable him to trace the genesis, development and growth of political institutions, and especially to awaken in him an enthusiasm for personal individual effort. Students are sent to original sources of information so far as possible. Careful training in the use of historic sources is given in courses 1 and 2. The topical and laboratory methods are for the most part adopted as best calculated to develop the individual powers of the student.

The studies in Philosophy are intended to help the student form habits of close, careful and logical analysis and reasoning; to interest him in considering questions of a subjective character and those which pertain more especially to his own rational nature and the organism of the state. The work is begun by a study of Psychology from a biological standpoint. Man as an individual is first considered and then

as a part of the social organism where he becomes a factor in the social and political forces of the world. Text books are used where they are found to be of real service but the chief instruction is given by lectures and class discussions based on assigned readings and original and individual work of students.

The following courses are offered:

Harding.

- 1 F.—General History**, a 5. 10:30-11:30. R. 1, C.
Pre. Eh. 3, Ms. 4.

- a, History of Greece and Rome with brief preliminary survey of Oriental history; readings, class discussions, careful training in use of historic sources and in the preparation of historic papers. A study of typical institutions and events as the chief basis of true historic judgment.

Myer's General History and Readings.

- 2 W.—General History**, a 5. 8:30-9:30. R. 1, C.
Pre. 1.

- a, Continuation of 1. Study and emphasis of institutions of the middle ages, reformation and renaissance periods, rise and development of modern nations.

Meyer's General History.

Reference Readings.

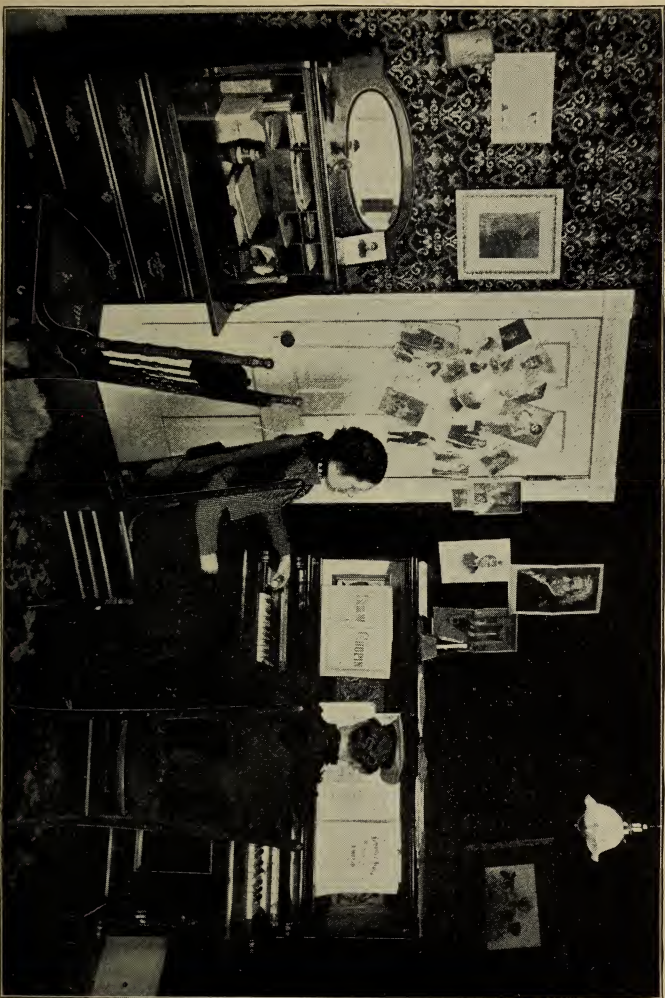
- 3 W.—American History**, a 5. 9:30-10:30. R. 1, C.
Pre. 2.

- a, Consideration of the financial, political and industrial events between 1765 and 1865 as bearing on the growth of union and the development of nationality with especial stress on the critical periods in the nation's history. Lectures, discussions, readings, topical investigations and analytical study of sources.

Channing's Students' History of the United States.

- 4 F.—Constitutional Law**, a 5. 8:30-9:30. R. 1, C.
Pre. 3.

- a, Sources of the Federal Constitution, structure and nature of the government of the United States, local and municipal



Mrs. S. S. S. S.

governments in their relation to state and nation. Naturalization, suffrage, citizenship and state administration. Lectures, class discussions, assigned topics and collateral readings.

Heston.

5 F.—Elementary Psychology, a 3. 9:30-10:30. R. 1, C. Pre. Eh. 6, Ms. 6 or 7, Bt. 2, Zo. 3, Ph. 3, Ch. 2, and H-P. 3.

a. Study of nervous mechanism at the disposal of the mind. Discussion of the various phases of mental activity. Special attention given to the cultivation of mental faculties and will power. Lectures and discussions.

Halleck's Psychology and Psychic Culture.

6 W.—Sociology & Economic Theory, a 5. 10:30-11:30. R. 1, C. Pre. 5.

a. This course is designed to introduce the student into the rich field of social science. He is required to familiarize himself with the principal forms of social organizations; the thoughts, sympathies, purposes and virtues that make society possible; with the benefits society confers and the conduct that worthy membership of it requires. Such study lies at the foundation of all further consideration of social problems. The effort in regard to Economic Theory is to point out the true field of economic study, its leading features and practical bearing on the important affairs of life.

Gidding's Elements of Sociology and Lectures.

7 S.—Ethics, a 3. 10:30-11:30. R. 1, C. Pre. 6.

a. Source of ethical principles, grounds of governmental authority. Discussions on conduct of individuals and nations. Informal lectures and collateral readings.

Hickok's Moral Science.

Harding.

8 S.—English Constitutional History, a 5. 9:30-10:30. R. 1, C. Pre. 3.

a. Development and present conditions of English political institutions, preceded by outlines of Anglo-Saxon and Feudal

governments. Special attention given to those features most closely related to the growth of American institutions. Macy's English Constitution.

- 9 S.—Territorial Expansion of U. S., a 2. 10:30-11:30. R. 1, C. Pre. 3.

Boundary questions, annexations, problems of expansion. Lectures and Readings.

- 10 S.—Municipal Government, a 3. 10:30-11:30. R. 1, C. Pre. 3 & 6.

- a, A study of Municipal Government with particular reference to the economic and social problems of modern cities. Discussions, reports and papers.

References to Shaw's work on Current Literature. Goodnow's Municipal Problems.

- 11 S.—Public Finance, a 3. 8:30-9:30. R. 1, C. Pre. 3 & 6.

- a, Methods of financial administration. Special attention to American problems and to municipal finances, revenues and franchises.

Lectures and Discussions.

- 12 S.—Currency & Banking. a 2. 8:30-9:30. R. 1, C. Pre. 3 & 6.

- a, The functions of money and credit with text book study of Dunbar's History and Theory of Banking.

References to Walker, Jevons, Mill and others.

Heston.

- 13 W.—Economics, a 3. 8:30-9:30. R. 1, C. Pre. 3 & 6.

- a, Study of the elementary principles of Economics; the laws of production and exchange emphasized and illustrated with discussion of practical modern problems.

Ely's Outlines and Lectures.

14 W.—U. S. Economic History, a 5. 2:00-3:00. R. 1, C.
Pre. 3 & 5.

a, A study of household industries in the colonies, colonial commerce, internal transportation, invention of agricultural implements, labor organizations, monetary disturbances, tariff legislation. Emphasis will be placed on the organic conception of industrial society and an effort made to understand our different industrial situations.

Lectures and Assigned Readings.

15 S.—Advanced Political Economy, a 2. 10:30-11:30. R. 1, C.
Pre. 3, 5 & 13.

a, Theories of value and distribution considered, application of theories to an explanation of current economic conditions.

Lectures and Readings.

16 S.—International Law, a 5. 3:00-4:00. R. 1, C.
Pre. 3 & 6.

a, Sources of International Law examined. Study of prominent treaties. Lectures on treaty making and national comity with class discussions and papers.

Lawrence's International Law and Lectures.

Department of Mathematics and Astronomy.

Ms.

The general work of this department is planned with the view of cultivating in the student habits of systematic and accurate thinking as well as of giving a knowledge of methods in dealing with the practical problems that may arise in college work and in future life. Independent effort is encouraged to the greatest possible extent, the solution of problems and original demonstrations forming an important part of each course. In mathematics, courses 1, 2, 3, 4, 5, 6 and 7, mentioned

below are required for graduation. In place of course 6, however, students are at liberty to elect course 8 together with courses 9 or 10 or Ae. 1. In addition to these, other courses are offered for election, including the prerequisites required in the other departments, together with subjects designed primarily for students who may wish to pursue special work in mathematics.

In Astronomy one course is required for graduation. This is intended to give such a knowledge of the science as an educated person should possess. A course in Practical Astronomy is also offered for election. The class room work of both these courses is supplemented by the use of instruments in the observatory. These include a five inch equatorial telescope, a transit instrument, a sidereal clock and a chronograph.

The following courses are offered:

Crane.

- 1 F.—Algebra**, a 5. 9:30-10:30. R. 34, C.
a, The fundamental operations, simple equations, factors and multiples.

Milne's High School Algebra to p. 99.

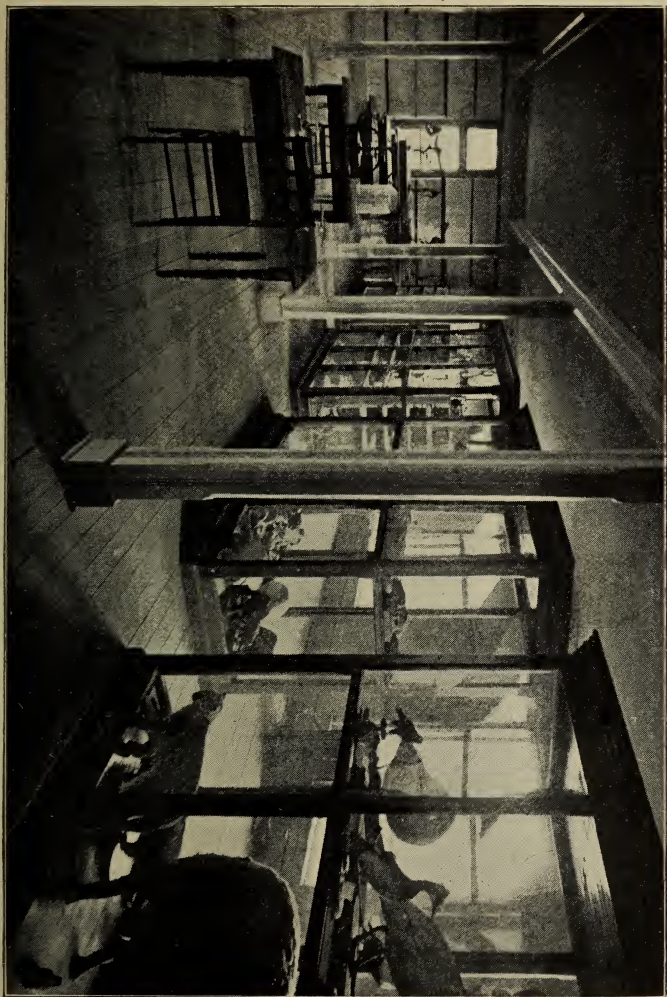
- 2 W.—Algebra**, a 5. 8:30-9:30, R. 34, C.
Pre. 1.
a, Fractions, simultaneous equations of the first degree, involution and evolution.

Milne's High School Algebra from p. 99 to p. 191.

- 3 S.—Algebra**, a 3. 8:30-9:30. R. 34, C.
Pre. 2.
a, Theory of exponents, radical quantities, quadratic equations, logarithms.

Milne's High School Algebra.

- 4 S.—Geometry**, a 2. 8:30-9:30. R. 34, C.
Pre. 2.
a, Fundamental concepts, triangles, parallels and parallelo-



grams, quadrilaterals. To be taken with course 3.

Phillips and Fisher's Elements of Geometry (abridged edition.)

- 5 **F.—Geometry**, a 5. 10:30-11:30. R. 34, C.
Pre. 4.

a, Limits, the circle, similar figures.

Phillips and Fisher's Elements of Geometry, (abridged edition.)

- 6 **W.—Geometry**, a 5. 9:30-10:30. R. 34, C.
Pre. 4 & 5.

a, Areas, regular polygons, mensuration of the circle; elements of solid geometry, with numerous original demonstrations and problems.

Phillips and Fisher's Elements of Geometry (abridged edition.)

- 7 **S.—Trigonometry**, a 5. 10:30-11:30. R. 34, C.
Pre. 3 & 5.

a, The trigonometric functions, analytically and graphically; the use of logarithms, the solution of right and oblique triangles, spherical trigonometry with practical problems in plane and spherical trigonometry.

Wentworth's Trigonometry and Surveying.

- 8 **S.—Surveying**, b 2. 2:00-4:00. R. 34, C.
Pre. 7.

b, Theory of surveying; study of United States Manual of Surveying; field work.

Brown.

- 9 **F.—Algebra**, a 2. 8:30-9:30. R. 33, C.
Pre. 3.

a, A review of the quadratic equations, the progressions, imaginary quantities, inequalities, permutations and combinations, the binomial theorem, logarithms.

- 10 **S.—Spherical Trigonometry**, a 2. 3:00-4:00. R. 33, C.

a, The solution of spherical triangles; continuation of course 7.

- 11 W.—Analytic Geometry**, a 5. 10:30-11:30. R. 33, C.
Pre. 7 & 9.
- a, The point, right line, the conics, the general equation of second degree.
Nichol's Analytic Geometry.
- 12 S.—Differential Calculus**, a 5. 8:30-9:30. R. 33, C.
Pre. 11.
- a, The differential coefficient, the formulae of differentiation, the expansion of functions, successive and partial differentiation, indeterminate forms, tangents and normals, radius of curvature, evolutes and involutes, envelopes, maxima and minima.
Osborne's Differential and Integral Calculus.
- 13 F.—Integral Calculus**, a 3. 10:30-11:30. R. 33, C.
Pre. 12.
- a, Integration as the inverse operation of differentiation integration of rational fractions, integration by rationalization, by substitution, reduction formulas, integration as a summation, rectification of curves, areas and volumes with numerous problems.
Osborne's Differential and Integral Calculus.
- 14 W.—Analytic Mechanics**, a 5. 9:30-10:30. R. 33, C.
Pre. 13.
- a, The application of analytic geometry and differential and integral calculus to the problems of mechanics. The laws of equilibrium, motion, work and energy of particles and rigid bodies.
- 15 S.—Analytic Mechanics**, a 3. 9:30-10:30. R. 33, C.
Pre. 14.
- a, A continuation of course 14. Lectures with references.
- 16 F.—Determinants**, a 3. 2:00-3:00. R. 33, C.
Pre. 9.
Hanus's Elements of Determinants.

- 17 W.—Advanced Analytic Geometry, a 5. 3:00-4:00. R. 33, C. Pre. 11 & 16.
- a, The general equation of the second degree; the analytic geometry of space, the point, plane straight line, surfaces of the second order.
- 18 F.—Theory of Equations, a 5. In 1901. 3:00-4:00. R. 33, C. Pre. 9.
- Burnside and Panton's Theory of Equations.
- 19 F.—Differential Equations, a 5. In 1900. 3:00-4:00. R. 33, C. Pre. 13.
- Johnson's Differential Equations.
- 20 S.—**Astronomy**, a 5. 2:00-3:00. R. 33. C. Pre. 7.
- a, Astronomical instruments, astronomical coordinates, the earth, moon and sun; the planets, fixed stars and constellations; observations and measurements with the equatorial and the transit instruments.
- Todd's New Astronomy.
- 21 S.—Practical Astronomy, a 3. 3:00-4:00. R. 33, C. Pre. 7 & 8.
- a, Astronomical problems; use of ephemeris.
-

Department of Physics and Electrical Engineering.

Ph.

The various courses are offered for four classes of students.

First:—Those who desire to take a scientific course where it would be necessary to take physics as a foundation subject.

Second:—Those wishing to gain some knowledge of the ele-

mentary principles of physics in order to fit themselves for teachers of science in our high schools.

Third:—Those wishing to make physics their major subject.

Fourth:—Those who desire such work as will help in fitting themselves for electrical engineers.

From the fact that physics is one of the foundation sciences and that a knowledge of its laws is a necessity to every student seeking a scientific training, the department has been well fitted with room and appliances to provide this training. Its lecture room is well provided with arm-rest chairs. The advanced laboratories are provided with non-vibratory piers, and opaque shutters for darkening the rooms for work in optics. Water, gas and electricity are provided for the recitation room, the dark room and the laboratories. Several volumes of reference books upon the various lines of physics are kept in the department for the use of students.

The laboratory equipment includes such expensive pieces as analytical balances, laboratory clock making electrical contact every second, spectroscope, stereopticon (arc light), Carhart-Clark standard cell, dynamo, electro-motor, galvanometers, induction coils, voltmeters, Wheatstone bridges, X-ray apparatus. A desirable arrangement of work for those who wish to take electrical engineering is shown on pages 58 to 64. The following is the list and descriptions of the courses offered in this department.

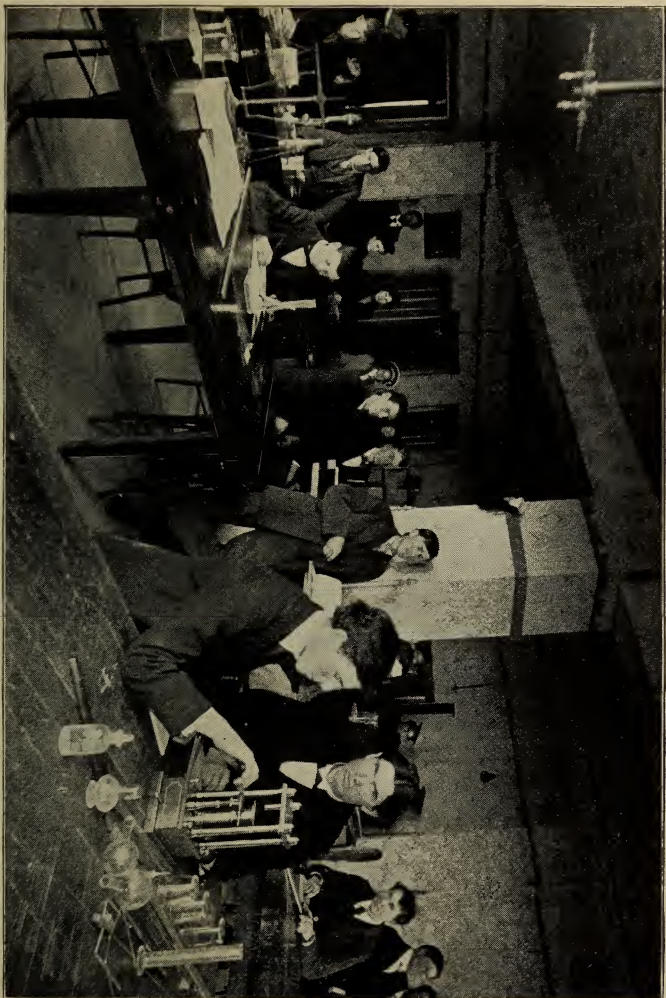
Mathews.

- | | | | | |
|---|-------------------------------|--------|------------|-----------|
| 1 | F.—Elementary Physics, | { a 3. | 8:30-9:30. | R. 55, N. |
| | | { b 2. | 2:00-4:00. | R. 56, N. |
- Pre. with Ms. 1.

- a, Properties of matter, mechanics of solids, mechanics of fluids, sound and heat.
- b, Laboratory work showing principal phenomena and proving laws governing them in properties of matter, mechanics of solids, mechanics of fluids, sound and heat.

Avery's Elementary Physics to chapter V.

Chute's Practical Physics—Laboratory Manual.



GENERAL PHYSICAL LABORATORY

- 2 **W.—Elementary Physics,** $\left\{ \begin{array}{l} \text{a 3.} \\ \text{b 2.} \end{array} \right.$ 9:30-10:30. R. 55, N.
2:00- 4:00. R. 56, N.
Pre. 1. and Ms. 1.

a, Light, magnetism, static and current electricity.

b, Laboratory work in refraction and reflection of light, color, magnetism, static electricity, arrangement of batteries, detection of the electric current and its direction, induced currents and measurements of electrical resistances.

Avery's Elementary Physics complete from chapter V.

Chute's Practical Physics—Laboratory Manual.

- 3 **S.—General Physics,** $\left\{ \begin{array}{l} \text{a 3.} \\ \text{b 2.} \end{array} \right.$ 9:30-10:30. R. 55, N.
9:30-11:30 or 2:00-4:00. R. 56, N.
Pre. 1 & 2, Ms. 1, 2, 3, 4, 5, 6 & 7.

a, Mechanics of solids and liquids, heat sound, light, magnetism and electricity.

b, Exact measurements of mass, distance, time, calorimetry, velocity of sound, refraction and reflection of light, electrical resistance, voltage and current strength.

- 4 **F.—Advanced Physics,** $\left\{ \begin{array}{l} \text{a 3.} \\ \text{b 2.} \end{array} \right.$ 9:30-10:30. R. 55, N.
9:30-11:30 or 2-4. R. 56, N.
Pre. 1, 2 & 3, Ms. 7.

a, Mechanics, kinematics, kinetics, mechanics of fluids, nature and motion of sound, physical theory of music.

b, Laboratory work and measurements covering topics mentioned in a.

Carhart's University Physics, Vol. 1, Nichol's Laboratory Manual, Stewart and Gee, Glazebrook and Shaw.

- 5 **W.—Advanced Physics,** $\left\{ \begin{array}{l} \text{a 3.} \\ \text{b 2.} \end{array} \right.$ 10:30-11:30. R. 55, N.
2:00- 4:00. R. 56, N.
Pre. 4, Ms. 7.

a, Nature and propagation of light, refraction, reflection, interference, color, polarization, heat and thermodynamics.

- b, Laboratory work and measurements covering topics mentioned in a.

Carhart's University Physics, Vols. I & II, Nichol's Laboratory Manual, Stewart and Gee, Glazebrook and Shaw.

- 6 S.—Advanced Physics, { a 3. 10:30-11:30. R. 55, N.
b 2. 9:30-11:30 or 2:00-4:00. R. 56, N.
Pre. 5, & Ms. 7.

- a, Magnetism, electricity, electrolysis, induction currents, primary batteries, electric oscillations and waves.

- b, Laboratory work and measurements covering topics mentioned in a.

Carhart's University Physics, Vol. II.

Nichol's Laboratory Manual.

Stewart and Gee, Glazebrook and Shaw.

- 7 F.—Dynamo Electric Mach., { a 3. 10:30-11:30. R. 55, N.
b 2. 9:30-11:30 or 2-4. R. 56, N.
Pre. 6, & Ms. 15.

- a, Theory, magnetic circuit, equation and computation of parts of dynamo, construction of armature and field magnets and types of dynamos.

- b, Computation and construction of parts of small dynamos.

Thompson's Dynamo Electric Machinery.

Wiener's Dynamo Electric Machinery.

- 8 W.—Dynamo Electric Mach., { a 3. 8:30-9:30. R. 55, N.
b 2. 8:30-10:30 or 2-4. R. 56, N.
a, Continuation of course 7.

- 9 F.—Heat, { a 3. 10:30-11:30. R. 55, N.
b 2. 2:00-4:00. R. 56, N.
Pre. 5, & Ms. 13.

- a, Sensible and latent heat, dynamical generation of heat, thermometry, calorimetry, specific heat, atomic and molecular heat capacities, evaporation, ebullition, vapor densities, cooling, diathermancy, conductivity and dynamical equivalent of heat.

- b, Laboratory work covering topics mentioned in a.

Preston's Theory of Heat, Maxwell's Heat.

- 10 W,—Sound, $\begin{cases} \text{a 3.} \\ \text{b 2.} \end{cases}$ 8:30-9:30. R. 55, N.
2:00-4:00. R. 56, N.

Pre. 1, 2, 3 & 4. Ms. 13,

a, A mathematical study of sound and the theory of music.

b, Advanced laboratory work in sound alternating with a.

- 11 S.—Light, $\begin{cases} \text{a 3.} \\ \text{b 2.} \end{cases}$ 8:30-9:30. R. 55, N.
2:00-4:00. R. 56, N.

Pre. 6. & Ms. 13.

a, Shadows and images, spectrum, velocity of light, color, phosphorescence, fluorescence, diffraction, measuring waves, prisms, and polarization.

b, Laboratory work along same line as a.

Preston's Light.

- 12 S.—Electricity & Magnetism, $\begin{cases} \text{a 3.} \\ \text{b 2.} \end{cases}$ 8:30-9:30. R. 55, N.
2:00-4:00. R. 56, N.

Pre. 6. & Ms. 13.

a, Magnetism, static electricity, electric capacity, magnetomotive force, electro magnets, electro dynamometers, grouping of cells, methods of measuring magnetism, current strength, voltage and resistance, thermo-electricity, dynamo, alternators, accumulators and transformers.

b, Laboratory work on the above topics.

Thompson's Electricity and Magnetism.

Gray's absolute Measurements in Electricity and Magnetism.

Carhart and Patterson's Electrical Measurements.

Solberg.

- 13 F.—Dynamo Design, b 5. 2:00-4:00. R. 106, M.
Pre. 6. & Me. 10.

b, The designing of dynamos and their principal parts.

- 14 W.—Dynamo Design, b 2. 2:00-4:00. R. 106, M.
Pre. 13.

b, Continuation of course 13.

15 S.—Design of Power Stations, b 3. 2:00-4:00. R. 106, M. Pre. 14.

b, The arrangement of dynamos, boilers and other necessities in a power station; showing how to conserve space, and the most economical and best connections.

Department of Mechanical Engineering.

Me.

The object of the work offered is to give the student a thorough training in the theoretical principles underlying the science of mechanics and machines and at the same time to enable them to become practically familiar with some of the numerous applications of these principles which are of such inestimable value to the human race.

The instruction is both theoretical and practical. The usual methods of text book study and lectures are employed, but the student is required to put into practice, as far as possible, the instruction which he receives. Hence the work of the classroom is supplemented and practically exemplified by practice in shops. The student not only studies the theories of constructing and operating machinery, but in the drawing room he designs, and in the shops constructs and operates such machines. It is believed that those who complete this course will be fitted to fill responsible positions in manufacturing establishments. It is important that French be elected as the language which is required in addition to English.

The work-shops are supplied with a large variety and quantity of tools. The wood shop is furnished with twenty sets of carpenter tools and with eight wood turning, and one pattern maker's lathe, a scroll saw and a complete set of tools for each. There is also a variety of special tools for wood working.

The machine shop is furnished with engine lathes, planer, drill press, emery wheels and a great variety of hand tools.



MECHANICAL, DRAWING ROOM.

The machinery is driven by a 25 H. P. Atlas engine. A supply of instruments for testing work, such as indicators, planimeters and tachometers are at the disposal of the students of the department.

A large number of pictures, drawings, and illustrative material has been recently added to the equipment through the liberality of manufacturers and friends of the college.

The following work is offered:

Hoy.

- 1 W.—Carpentry, a 3, 2:00-4:00. R. 105, M.
b, Talks on the care and use of different tools. Practice at the bench in making the various joints used in wood construction.
- 2 W.—Wood Turning, b 3. 2:00-4:00. R. 101, M.
b, Wood turning in hard and soft woods.
- 3 F., W. & S.—Forging, b. 3. 2:00-4:00. R. 107, M.
b, Bending, drawing, upsetting, welding and forming iron.
- 3c F., W. & S.—Forging (steel) b 2. 2:00-4:00. R. 107, M.
b, Steel manipulation, including cold chisels, punches and lathe and planer tools, tempering and hardening.
- 4 F., W. & S.—Machine Shop, b 2. 2:00-4:00. R. 101, M.
b, Filing, chipping and fitting, work with different machines, such as lathes, planer and drill press.
- 4c F. W. & S.—Machine Shop, b 3. 2:00-4:00. R. 101. M.
a, Construction of some machine or appliance from designs made in drawing room.

Solberg.

- F. & S. }
5 W. } } Mechanical Drawing, { b 3. 2:00-4:00. }
 { b 2. 2:00-4:00. } R. 106, M.
 { b 5. 10:30-11:30. }

Pre. Ar. 1.

- b, Instrumental drawing, geometrical problems and parts of machines.

- W. { b 2.
 6 S.—Machine Design, { b 3.
 F. { b 2. } 2:00-4:00. R. 106, M.

b, Solution of various problems involving the design of simpler parts of a machine.

Klein's Machine Designs.

- 7 W.—Kinematics, b 3. 2:00-4:00. R. 103, M.

a, Geometry of machinery, problems in the design of motion transmitting appliances.

- 8 F.—Engineering Design, b 5. 2:00-4:00. R. 106, M.

b, Solutions in the drawing room of some practical problems in design and making working drawings of same.

- 8c W.—Engineering Design, b 2. 2:00-4:00. R. 106, M.

Continuation of course 8.

- 9 W.—Elements of Mechanism, a 5. 9:30-10:30. R. 103, M.

a, Elements of machinery, velocity ratios, graphic representation of speed and acceleration. Motion transmitting parts, such as gears, belts, cams, screws, link work. Automatic feeds, parallel and quick return motions. Designing.

Wood and Stahl.

- 10 S.—Elementary Mechanics, a 5. 10:30-11-30. R. 103, M.

a, Kinetics, dynamics, statics, friction, pendulum, simple machines with their sub-divisions and many practical examples.

Dana's Elementary Mechanics.

- 11 F.—Steam Engine, a 5, 8:30-9:30. R. 103, M.

a, Study of the modern steam engine, slide valve, and when in combination with independent cut off valves, link motion and Zeuner diagrams, reciprocating parts and indicator practice.

Holmes' Steam Engine.

- 12 W.—Steam Boilers, a 5. 8:30-9:30. R. 103, M.

a, Advantages and disadvantages of using the various forms of boilers, methods in construction, tubes and flues, plates,

riveting, bracing, grate and heating surface, gauges and feed appliances, setting, care and operation.

Wilson and Flather's Steam Boilers.

13 S.—Strains in Framed Structures, a 5. 8:30-9:30. R. 103, M.

a, Graphical determination of stresses under action of static, moving and wind forces.

Green, Vol. 1.

14 S.—Strength of Materials, a 2. 10:30-11:30. R. 103, M.

a, Strength of such materials of construction as wood, iron and steel.

'SHORT COURSE IN PRACTICAL STEAM ENGINEERING.

Modern agricultural methods have introduced, in such a marked degree, the steam engine as a substitute for animal power that the consequent growing demand for steam engineers has lead the college to arrange a one year course of study for the special training of steam (especially traction) engineers. Extreme care has been taken only to offer such work as shall prove valuable to the man running the traction engine or other machinery. A relatively large amount of shop work, engine repairing and engine running is introduced, with a proper proportion of recitations in closely allied subjects. Upon the satisfactory completion of this work the student is given a certificate which is virtually the same as a license in this state to run an engine.

This course begins September 27th, 1899, and consists of the following subjects, the description of which will be found under the departments in which they naturally belong. Fall term same as preparatory.

(Winter Term, January 3rd—March 28.)

Pr. 5. Arithmetic, a 5. 8:30-9:30. R. 35, C.

Me. 15. Physics of Steam, a 5. 9:30-10-30. R. 103, M.

Pr. 9. Civil Government, a 3. 10:30-11:30. R. 1, C.

Me. 3. Forging, b 3. } 2:00-4:00. { R. 107, M.

Me. 5. Mech. Drawing, b 2. } { R. 106, M.



CHURCH OF THE LATTER DAY SAINTS

work in hydraulics, road repair and construction and care of farm machinery. Lectures and collateral readings.

- 4 S.—Hydromechanics, a 5. 10:30-11:30. R. 4, C.
Pre. Ms. 11.
a, Study of the action of water under different conditions.
Bowser's Hydromechanics.
- 5 S.—Building Construction, a 5. 9:30-10:30. R. 4, C.
a, Wood, masonry and fire-proof construction in detailed application to buildings.
Kidder's Building Construction.
- 6 W.—Architectural Design, b 5. 2:00-4:00. R. 106, M.
Pre. 1 & 2.
b, Principles of planning introduced in practical problems, exercises in composition and details.
- 7 W.—Architectural History, a 3. 9:30-10:30. R. 4, C.
Pre. 6.
a, History of the evolution of common styles and processes of building, from ancient beginnings, especial application to Greek and Roman orders and their modern utilization.
- 8 W.—Sanitation, a 5. 8:30-9:30. R. 4, C.
Pre. Ms. 6.
a, Elements of sanitary engineering; water supply, sewage disposal and other problems in municipal engineering.
- 9 F.—Practical Design, b 5. 2:00-4:00. R. 4, C.
Pre. 7 & Me. 13 & 14.
b, Solution of practical problems in design.
- 10 W.—Practical Design, b 2. 2:00-4:00. R. 4, C.
Pre. 9.
b, Continuation of course 9.

11 S.—Building Construction, a 5. 9:30-10:30. R. 4, C. a, Course 5 continued; wood construction in detailed application to buildings.

Kidder's Building Construction.

Department of Domestic Science.

Ds.

The work of this department is designed not alone to give the student a knowledge of the subjects which are so important to the house-keeper or home-maker but in addition, to develop the mind by training the hand, and at the same time teach the science of comfortable, healthful living. As an example the work in sewing teaches the student how to make the various garments, their appropriateness under different conditions and the methods of manufacture of some of the common fabrics. Attention is given to dining room etiquette and the tasty arrangement of table. A course in household sanitation is offered.

The department has ample rooms for its different sections of work which are well supplied with proper equipment such as sewing machines, cooking utensils and charts. A large number of illustrative samples are kept at hand for use in connection with lectures. Many books of reference and leading magazines on the subject are kept in the general library. For major in Ds. see Domestic Economy Course, pages 59 to 65.

The following courses will describe the work more fully:

Frisbie.

- 1 W.—Plain Sewing, b 3- 2:00-4:00. R. 80. N. b, Practice upon samples of the stitches in every day use, including button-hole making, preparing a model book, and making at least two pieces of a suit of underwear.

-
- 2 W.—Household Economy, a 5. 10:30-11:30. R. 84, N.
Pre. Ch. 1.
- a, Lectures on foods and the preparation of same and upon
the general care of dining room and kitchen.
- 3 S.—Cooking, b 3. 2:00-4:00. R. 81, N.
b, Bread making, cooking of meats, pudding; cakes and plain
cookery in general.
- 4 S.—Sewing, b 2. 2:00-4:00. R. 80, N.
Pre. 1.
- b, The making of the remainder of the suit of underwear, an
unlined dress, and a shirt waist.
- 5 F.—Sewing, b 3. 2:00-4:00. R. 80, N.
Pre. 4.
- b, Drafting, cutting and fitting and plain dressmaking.
- 6 W.—Sewing, b 5. 2:00-4:00. R. 80, N.
Pre. 5.
- b, Continuation of 5, general dressmaking.
- 7 W.—Sewing, b 5. 2:00-4:00. R. 80, N.
Pre. 1.
- b, Art needle work, as embroidery and hem stitching.
- 8 F.—Cooking, b 2. 2:00-4:00, R. 81, N.
b, Especial attention given to preserving, pickling and the
preparation of entrees.
- 9 S.—Cooking, b 5. 8:30-10:30. or 9:30-11:30. R. 81, N.
Pre. 8.
- b, Fancy cooking, menus, dainty methods of serving food and
invalid cookery.
- 10 W.—Cooking, b 5. 8:30-10:30 or 2:00-4:00. R. 81, N.
Pre. 9.
- b, Each girl will take up some special line of cookery, which
will give material for the preparation of her disquisition, if
her Major is in Domestic Science.

- 11 F.—Household Sanitation, a 2. 8:30-9:30. R 84, N.
Pre. 9.
- a, Lectures on proper house planning, ventilation and plumbing, care of sleeping rooms, arrangements for sickness and care of invalids.
- 12 S.—Cooking, b 5. 8:30-10:30 or 2:00-4:00. R. 81, N.
b, Continuation of course 10.
-

Department of Art.

Ar.

The work offered in Art is useful in various ways. It occupies a practical field in the study of any of the sciences where drawings and sketches are required. It cultivates the eye to see and the mind to appreciate the beauties of nature. It develops both the practical and æsthetic. It enables the hand to do the will of the mind and to interpret what is seen by the eye. It is of great importance when it comes to the arrangement of a house so as to make it pleasant and attractive. To get credit for work in Art see course in Literature and Art.

Work is offered in free-hand, perspective, cast and advanced drawing, drawing from life, painting from still life and life, clay modeling and wood carving. The department has commodious quarters for each of its special lines of work. It is well provided with casts, such as tablets, figures in relief, busts, full figures of animals and men; still life objects and drawing boards for work in drawing; tools for wood carving; busts and figures for copies in clay modeling and still life objects, easels and studios for work in painting. Special students will be advanced as fast as their ability permits. Books of refer-



ence and art magazines are kept in the library for the use of students.

The following work is offered:

- 1 **F.—Freehand Drawing**, b 3. 2:00-4:00. R. 74, N.
 b, Pencil drawing in outline from blocks and familiar objects, memory sketches, talks on conventionalization, use of the line in form, texture and surface, interpretation and general expression.
- 2 **F.—Freehand Drawing**, b 5. 2:00-4:00. R. 74, N.
 Pre. 1.
 b, Pencil and perspective continued, charcoal drawing from casts in outline and general light and shade Memory sketches.
- 3 **W.—Cast Drawing**, b 5. 2:00-4:00. R. 74, N.
 Pre. 1 & 2.
 b, Charcoal drawing from casts in full light and shade. Sketching from nature.
- 4 **W.—Antique Drawing**, b 5. 2:00-4:00. R. 74, N.
 Pre. 1, 2 & 3.
 b, Study in charcoal of heads and figures from the antique, anatomy, sketching from life.
- 5 **S.—Clay Modeling**, b 2. 2:00-4:00. R. 71, N.
 Pre. 1.
 b, Modeling of separate features of the face using plaster cast models. The mask, flowers and fruits in relief.
- 6 **S.—Clay Modeling**, b 5. 8:30-10:30 or 9:30-11:30. R. 71, N.
 Pre. 5.
 b, Continuation of course 5. Modeling of head and bust. Statuettes from cast and original design.
- 7 **F. & W.—Wood Carving**, b 2. { F. & W.—2:00-4:00. } R. 73, N.
 { F. b 5.—8:30-9:30. }
 Pre. 5.
 b, Proper handling of various tools used in wood carving, and the designing and carving of useful and ornamental articles.

- 8 W.—Oil Painting, b 5. 8:30-10:30 or 2:00-4:00. R. 74, N. Pre. 1 & 2.
- b, Still life, with special attention paid to color values. Talks on color composition, harmony of tints, light and shade effects, and distinctive features of the different schools of painting.
- 9 S.—Oil Painting, b 5. 8:30-10:30 or 2:00-4:00. R. 74, N. Pre. 8.
- b, Continuation of course 8. Painting from life.
-

Department of Music and Physical Culture.
Mu.

Although comparatively new the department is well equipped. Piano students are required to practice two hours a day. Good pianos are provided and students are expected to keep them in perfect condition.

A tutor takes charge of all delinquents and looks after the practice hours. The work in harmony and musical history is essential to a good musical education.

Violin and mandolin work is offered under a thoroughly competent teacher.

No major can be taken in this department but opportunity for music is given in Domestic Economy, Literature and Art courses. See schedule of the above courses on pages 58-65. Students who wish to make music a specialty will be encouraged to do so as far as facilities will permit.

A special fee of **five dollars** per term is charged all those who take music, either vocal or instrumental. This fee in-

cludes the use of pianos. Instruction and practice hours arranged by the professor.

The following courses are offered:

Pratt.

- 1 Piano, first grade work, a & b. R. 62, N.
 - a, Position of hand, special attention to touch; drill in reading simple studies.
 - b, Piano practice.
- 2 Piano, national graded course, a & b. R. 62, N.
Pre. 1.
 - a, Continuation of 1, touch and technic, velocity studies.
 - b, Piano practice.
- 3 Piano, a & b. R. 62, N.
Pre. 2.
 - a, Continuation of 2, touch and technic, velocity studies, duet ensemble practice.
 - b, Piano Practice.
Czerny's Studies. Krause Trill Studies. Mason's Touch and Technic.
- 4 Piano (advanced). a & b. R. 62, N.
Pre. 1, 2 & 3.
 - a, Bach's inventions, preludes and fugues, Clementi, Gradus ad Parnassum, Beethoven's Sonatas.
 - b, Practice.
- 5 Voice Culture, a & b. R. 62, N.
 - a, Diaphragmatic breathing explained, perfect relaxation of the muscles of the face, throat and tongue insisted upon, tone placing, vocal studies.
 - b, Vocal practice.
Bonoldi's Vocal Exercises.
- 6 Vocal Culture (advanced), a & b. R. 62, N.
Pre. 5.

- a, Continuation of methods in course 5, solo singing, special attention to enunciation.
b, Practice.
Bonoldi's Vocal Studies.
Voccai's Studies.
- 7 Harmony, a 3. R. 70, N.
Pre. 3 or its equivalent.
a, Scale construction, major and minor triads, chords of the 6th and 7th.
Emery's Elements of Harmony.
- 9 Harmony, a 3. R. 70, N.
Pre. 7.
a, Chords of 5th and 7th, modulations and simple melody and hymn writing.
- 10 Musical History, a 3. R. 70, N.
Pre. H-P. 2.
a, History of music, including opera from the earliest times.
Filmore's Musical History.
- 11 Physical Culture, b 2. 10:30-11:30. Armory.
Husted.
- 12 Violin, a & b.
Pre. Elements of Music.
a, Position, exercise in bowing; graded exercises in fingering.
b, Practice.
- 13 Violin, a & b.
Pre. 12.
a, Continuation of work from 12. Exercises in various keys, easy duets by Pleyel and others, studies in expression and tone quality.
b, Practice.
- 14 Violin, a & b.
Pre. 12 & 13.
a, More advanced work of 13. Positions, easy solos by popu-

lar composers. Studies in musical effects. Parallel courses with the above on the mandolin are offered.

b, Practice.

PHYSICAL CULTURE.

Regular work in physical culture is required of every young lady twice a week for the first three years of her connection with the institution after the preparatory year. The aim of this work is to secure better carriage and more systematic development of body. The class work consists of free movement exercises with the dumb-bells and clubs, jumping and all other exercises.

Department of Military Science. Mt.

The wisdom of the Federal law, requiring military instruction in land grant colleges was forcibly illustrated in the war with Spain. Students and graduates of these colleges were potent factors in putting the volunteer army into proper condition for actual service.

Male members of the preparatory department are required to take the drill of the Fall and Spring terms but many omit the drill recitations in Winter term.

All male students above the preparatory department are required to take the work in military offered for the first two years they are connected with the college or until they complete the required number of courses.

No exemption from military duty is allowed except upon excuse by the faculty for physical disability or other grave

reasons. When such excuse is granted some other work satisfactory to the faculty must be taken as an equivalent. All the training is of such a nature as to fit young men for the duties of officers. Members of the battalion, upon graduation, holding the highest military rank for this entire college work will be reported to the Adjutant General of the United States army who will publish their names in the Army Register. From this list officers are selected by appointment of the president for volunteer service in case of war.

The military work of the institution consists of drill or recitations in United States drill regulations as follows:

- 1 **F.—Setting up Drill**, b 3. 11:30-12:30. Armory.
b, Setting up exercises, military gymnastics and manual of arms. Mo., Tu. & Th.,
- 2 **W.—Drill Regulations**, a 2. 11:30-12:30. Armory.
Pre. 1.
a, Recitations in United States Army Regulations. Tu. & Th.
- 3 **S.—Drill**, b 3. 11:30-12:30. Armory.
Pre. 2.
b, Manual of arms and military gymnastics. Mo., Tu. & Th.
- 4 **F.—Drill**, b 3. 11:30-12:30. Armory.
Pre. 3.
b, School of company and school of batallion. Mo. Tu. & Th.
- 5 **W.—Drill Regulations**, a 2. 11:30-12:30. Armory.
Pre. 4.
Recitations in U. S. army regulations and lectures on military science. Mo. & Fr.
- 6 **S.—Drill**, b 3. 11:30-12-30. Armory.
Pre. 5.
b, General drill and target practice. Mo., Tu. & Th.

- 7 F.—**Art of War**, a 1. 11:30-12:30.
Pre. 6.
- a, Course of lectures on military science designed to fit young men for offices in the regular service. Fr.

Department of Pharmacy.
Py.

This work is primarily intended to thoroughly teach young men and women the science of pharmacy. It also serves as an excellent preliminary training for students intending to enter the practice of medicine or dentistry. The student may upon completion of the courses mentioned below receive the Ph. G. degree, or by electing Py. as a major and Ch. or Bt. as a minor, fulfill the requirements for B. S. degree. This is the only work of the kind offered in the state and receives the hearty commendation of the State Board of Pharmacy.

The department occupies rooms in close proximity to the chemical and is well supplied with instructional apparatus. Entrance requirements same as to Freshman class.

The following courses are offered:

Whitehead.

- 1 F.—**Scientific Latin**, a 5. 10:30-11:30. R. 42.
Pre. Eh. 3, Ph. 2.
- a, Subject is taught with special reference to its application in Pharmacy. The vocabulary employed is strictly pharmaceutical.

Robinson's Grammar of Pharmacy and Medicine first 80 pages.

Shepard.

- Ch. 1 F.—Qualitative Inorganic Ch.**, { a 3. 8:30-9:30. R. 42, C.
b 2. 8:30-10-30. R. 47, C.
Pre. Ph. 2 and Ms. 2.

a, History of chemistry, elements, compounds, symbols, val-

ence, atomic weights, chemical equations; oxygen, hydrogen, nitrogen, chlorine, bromine, fluorine, iodine, sulphur, phosphorus, silicon and their compounds. Bases, salts, acids and alkalies.

b, Detection of non-metallic elements and their compounds.

Shepard's Elements of Chemistry.

Saunders, D. A.

Bt. 1 F.—Elementary Botany, $\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right. \begin{array}{l} 2:00-3:00. \\ 2:00-4:00. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right\}} \right\} \text{R. 98, S.}$

a, General introduction to botany, the structure and functions of protoplasm, a brief study of some of the principles of plant economy and the life history of some of the important groups of microscopic plants, introduction to the structure of the flowering plants.

b, Demonstrations of (a).

Atkinson's Elementary Botany with lectures.

Moore.

Zo. 3 F.—Anatomical Methods, $\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right. \begin{array}{l} 8:30-9:30. \\ 2:00-4:00. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right\}} \right\} \text{R. 100, S.}$
Pre. 1 & Pr. 12.

a, Facts of general morphology, osteology, and orthology.

b, Dissections.

Zo. 4 W.—Anatomical Methods, $\left\{ \begin{array}{l} \text{a } 3. \\ \text{b } 2. \end{array} \right. \begin{array}{l} 8:30-9:30. \\ 2:00-4:00. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a } 3. \\ \text{b } 2. \end{array} \right\}} \right\} \text{R. 100, S.}$
Pre. Zo. 3.

a, Splanchnology and Myology.

b, Dissections.

Saunders, D. A.

Bt. 5 W.—Pharmacognosy, $\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right. \begin{array}{l} 9:30-10:30. \\ 9:30-11:30. \end{array} \left. \vphantom{\left\{ \begin{array}{l} \text{a } 2. \\ \text{b } 3. \end{array} \right\}} \right\} \text{R. 98, S.}$
Pre. Bt. 1.

a, Families of medicinal plants, the histology of the important drugs, study of the glands, reservoirs or receptacles of the essential parts of the drugs.

b, Demonstrations of (a).

Sayer's Organic Materia Medica and Pharmacognosy.



Shepard.

Ch. 2 W.—Qualitative Inorg. Ch., $\left\{ \begin{array}{l} \text{a 3. 2:00-3:00.} \\ \text{b 2. 2:00-4:00.} \end{array} \right\}$ R. 46, C.

Pre. 1.

a, The metals and their compounds. Groups of metals, separation of the metals and uses of their compounds.

b, Detection of principle metals and the working of a list of unknowns.

Shepard's Elements of Chemistry.

Saunders.

Bt. 6 S.—Pharmacognosy, $\left\{ \begin{array}{l} \text{a 2.} \\ \text{b 3.} \end{array} \right\}$ $\left\{ \begin{array}{l} \text{8:30-9:30.} \\ \text{2:00-4:00.} \end{array} \right\}$ R. 98, C.

Pre. 5.

a, Continuation of 5.

b, Demonstrations of (a).

Sayer's Organic Materia Medica and Pharmacognosy.

Shepard.

Ch. 3 S.—Qualitative Org. Ch., $\left\{ \begin{array}{l} \text{a 4.} \\ \text{b 1.} \end{array} \right\}$ $\left\{ \begin{array}{l} \text{9:30-10:30. R. 46, C.} \\ \text{2:00- 4:00. R. 47, C.} \end{array} \right\}$

Pre. 2.

a, The principal classes of organic compounds, the characteristics and properties of each class and the use of their various compounds.

b, The detection of principal organic compounds.

Shepard's Elementary Organic Chemistry.

Moore.

Zo. 6 S.—Advanced Physiology, a 5. 2:00-3:00. R. 100, S.

Pre. 1, Ph. 2 & Ch. 2.

a, The principles of Animal Physiology with demonstrations and experiments.

Thornton's Physiology.

Whitehead.

2 F.—Pharmacy, a 5. 8:30-9:30. R. 42, C.

Pre. Ch. 3.

a, Forms and uses of pharmaceutical apparatus, weighing by apothecaries and metric systems, specific gravity of solids

and liquids, heating apparatus, determination of boiling and melting points, distillation, comminution, solution, precipitation, filtration, crystallization, percolation.

Remington's Practice of Pharmacy.

- 7 F.—Materia Medica, a 5. 9:30-10:30. R. 46, C.
Pre. Py. 4.

- a, Medicinal properties, doses and poisonous effects of the various medicines, together with the antidotes which the pharmacist may be required to administer in an emergency will receive full and careful treatment.

Shepard.

- Ch. 4 F.—Quantitative Chemistry, { a 1. 2:00-3:00. R. 46, C.
b 4. 2:00-4:00: R. 44, C.
Pre. 2.

- a, The apparatus and its uses. Explanation of methods of quantitative determinations and reports of student analyses.
b, The quantitative analysis of typical and chemical compounds, e. g., calcite, magnesium sulphate and coal. Students will use both the volumetric and gravimetric methods.
Fresenius' Quantitative Chemistry.

Whitehead.

- 3 W.—Pharmacy, b 5. 2:00-4:00. R. 43, C.
Pre. 2 and Ch. 4.

- b, Preparations of waters, syrups, mucilages, etc., mentioned in course 4, and must be taken in connection with it.

Remington's Practice of Pharmacy.

- 4 W.—Pharmacy, a 5. 9:30-10:30. R. 42, C.
Pre. 2 and Ch. 4.

- a, Study of official medicines, waters, syrups, mucilages, mixtures, spirits, elixirs, linaments, infusions, tinctures, fluid extracts, oleoresins, extracts and official inorganic salts and compounds.

Wilcox and White.

- 8 W.—Materia Medica, a 5. 10:30-11:30. R. 42, C.
Pre. 7.

- a, Continuation of course 7.
Wilcox and White.

- 9 S.—Materia Medica, a 5. 10:30-11:30. R. 42, C.
Pre. 8.
a, Continuation of courses 7 and 8.
Wilcox and White.
- 10 S.—Drug Assaying, b 5. 4:00-6:00. R. 43, C.
Pre. 3 & 4.
b, The drug assaying consists mainly in acquiring knowledge and practice in the preparation of official tests and volumetric solutions and the quantitative determination of the alkaloids found in some of the crude drugs. A short course in urine analysis is given in connection with drug assaying.
Pharmacopœia, Lyon's Pharmaceutical Assaying and Allen's Organic Analysis.
- 5 S.—Pharmacy, a 5. 9:30-10:30. R. 42, C.
Pre. 3 & 4.
a, Solutions, emulsions, powders, pills, ointments, plasters, reading prescriptions.
Remington's Practice of Pharmacy.
- 6 S.—Pharmacy, b 5. 2:00-4:00. R. 43. C.
Pre. Py. 3 & 4.
b, Compounding of prescriptions, making of solutions, emulsions, powders, pills, reading and compounding prescriptions. Must be taken same term as course 5.
Remington's Practice of Pharmacy.
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Department of Commercial Science.

Cl.

Appreciating the fact that business men are governed largely by certain specific and established rules, it becomes necessary that this department keep in touch with these usages

and impart the same to the student in such definite and concise terms as shall prepare him for successful entrance to the business world.

The rooms for the department are exceptionally well suited and adapted to the work of the business student. The amanuensis room is supplied with fifteen typewriting machines and ample table and black board surface. The offices such as the Bank, Post Office and Mercantile are well fitted for giving the student actual practice in business methods. The college library affords good opportunity for references and collateral reading.

Penmanship and business letter writing, while not scheduled as a part of the regular course, are given particular emphasis throughout the year, thereby combining facility with practicability. The business and amanuensis courses **each** require one year's work and when the student has satisfactorily completed either he will be given a certificate of graduation. Applicants for graduation in the amanuensis department must attain a shorthand speed, from general matter, of one hundred words per minute and transcribe the same on the machine at the rate of thirty-five words per minute. With the exception of physical geography, the requirements for admission to this department are the same as to the sub-freshman year.

Crosier.

- 1 F.—Shorthand, b 5. 2:00-4:00. R. 31, C.
b, Consonant stems, vowels, diphthongs, intital and final hooks and circles, word signs, etc., in logical order. Elimination of vocalization through position; the habit of coordination emphasized from the beginning.

Graham's Hand Book to page 261.

- 2 W.—Shorthand, b 5. 8:30-10:30. R. 31, C.
b, Completion of Hand book, observing particularly reporting word signs and contractions, word phrasing, etc., easy business letters and completion of I. C. R.
Graham's Hand Book. Graham's I. C. R.



PRACTICAL BUSINESS ROOM.

- 3 S.—Shorthand, b 5. 8:30-10:30. R. 31, C.
b, General dictation from Brown's Business correspondence, Humphrey's Typewriting Manual and Graham's Second Reader, devoting considerable time to law forms. The aim of this term is to familiarize the individual with letters pertaining to all branches of commerce and social life.
Graham's Second Reader.
Orr.
- 4 F. W.—Bookkeeping, } a 5. F. —10:30-11:30. R. 31, C.
W.— 3:00-4:00. R. 100, S.
a, In all its elementary phases, as journalizing, posting, taking trial balance, closing ledger, changing from single to double entry, etc., paying especial attention to penmanship, neatness and accuracy.
Benton's High School Edition.
Crosier.
- 5 W.—Bookkeeping, b 5. 2:00-4:00. R. 31, C.
b, Each student carries on regular retail business, through six offices, with the student body. While all transactions are of the same general nature the results are different, thus creating in the individual student a habit of self reliance. All work must be of a certain degree of excellency before the next step can be taken. This term's work comprises four hundred different transactions, together with the necessary letters, checks, drafts, notes, etc., that would naturally attend same in actual business.
Goodyear's System of Business.
- 6 S.—Business Practice, b 5. 2:00-4:00. R. 31, C.
b, Business practice, changing work of previous term into wholesaling and commission business. All transactions are carried out by students in outside colleges thereby approaching, as nearly as possible, actual business.
Goodyear's System of Business.
- 7 S.—Commercial Law, a 5. 10:30-11:30. R. 31, C.
a, Law in general, contracts, principal and agent, partnership, corporations, sales of personal and real property, bailments and common carriers, negotiable paper, deeds, mortgages and leases, collection laws, legal rates of interest, insurance, patent rights, trade marks and copy rights.

This work is conducted by the outline method and at the end of each week an original essay of not less than five hundred words is required of each member of the class on the work covered during that period. At the close of term an original disquisition of not less than five hundred words touching upon all the work, is required. This must be typewritten, bound and in presentable shape to file for future reference.

Spencer's Commercial Law.

Orr.

8 F., W., S.—Typewriting, b 5. R. 32, C.

b, Graded exercises on machine to learn key board, care of machine, business letters, law forms, manifolding, and mimeographing, department correspondence, speed practice, binding, folding, and filing all kinds of typewritten matter. One hour each day during school hours.

Harding.

Pr. 9 F.—Civil Government, a 5. 9:30-10:30. R. 1, C.

a, An elementary study of our civil institutions, local, state and federal. The township, the school district, the incorporated town, the city and county, historical origin, mode of organization, officers and functions. The state, with special study of the constitution of South Dakota. The nation, branches of government, powers of congress, the relation of the states, careful study of the constitution. Recitations, readings and occasional reports.

McCleary's Studies in Civics.

Crane.

9 F.—Intellectual Arithmetic, a 3. 2:00-3:00. R. 34, C.

a, To qualify the student to make rapid mental calculations. Multiplication table required up to twenty-five inclusive.

Orr.

10 W.—Commercial Arithmetic, a 5. 8:30-9:30. R. 33, C.

a, Short methods in addition, subtraction, multiplication and division, rapid calculation in percentage, interest, discount and ordinary arithmetical processes.

Goodyear's Progressive.

Chilcott.

Pr. 12 S.—Physical Geography, a 5. 8:30-9:30. R. 35, M.

a, Physiography of the United States, introduction to Gl. 1, air, ocean and land. Lectures illustrated by stereoptican.

Tarr's Physical Geography.

Sub-Freshman Year.

ADMISSION TO COLLEGE WORK.

The following courses are required of all students for admission to the Freshman work in any of the regular four year courses:

For full description of courses see departments in which subjects naturally belong.

FALL TERM.

Algebra, a 5. see.....	Ms. 1
El. Physics, a 3., b 2. see.....	Ph. 1
English Words, a 5. see.....	Eh. 1
Freehand Drawing, b 3. see.....	Ar. 1
Military, b 3.or Physical Culture, b 2.....	Mt. 1 or Mu. 11

WINTER TERM.

Algebra, a 5. see.....	Ms. 2
El. Physics, a 3., b 2. see.....	Ph. 2
Rhetoric, a 5. see.....	Eh. 2
Carpentry, b 3., or Sewing, b 3.....	Me. 1. or Ds. 1
Military, a 2. or Physical Culture, b 2.....	Mt. 2 or Mu. 11

SPRING TERM.

Algebra, a 3. see.....	Ms. 3
Geometry, a 2. see.....	Ms. 4
Rhetoric, a 5. see.	Eh. 3
El. Zoology, a 4., b 1. see.....	Zo. 1
Forging, b 3. or Cooking, b 3..	Me. 3 or Ds. 3
Military, b 3 or Physical Culture, b 2.....	Mt. 3 or Mu. 11

RECAPITULATION.—The following important features of Sub-Freshman work should be noted:

1. Mathematics includes Elementary Algebra and two books in Plane Geometry.
 2. English is carried through Rhetoric and includes thorough training in theme and essay writing.
 3. Science embraces Physics (Avery's Elements) with laboratory practice and Zoology (Martin's) also with laboratory practice.
 4. Practicums in Carpentry, Forging, Cooking, Sewing and Freehand Drawing.
-

Preparatory Department.

Pr.

The work in this department is prerequisite to all the other courses offered. Standings from public schools in the state will be accepted and due credit given for same grade of work completed there. The students of this department are under immediate charge of an experienced member of the faculty who superintends their methods of work and strives to secure the forming of correct habits of work and life on the part of all.

The Franklin Literary Society is made up entirely of Preparatory and short course students.

Students will not be admitted to this department unless they show sufficient development and training to carry the work offered.

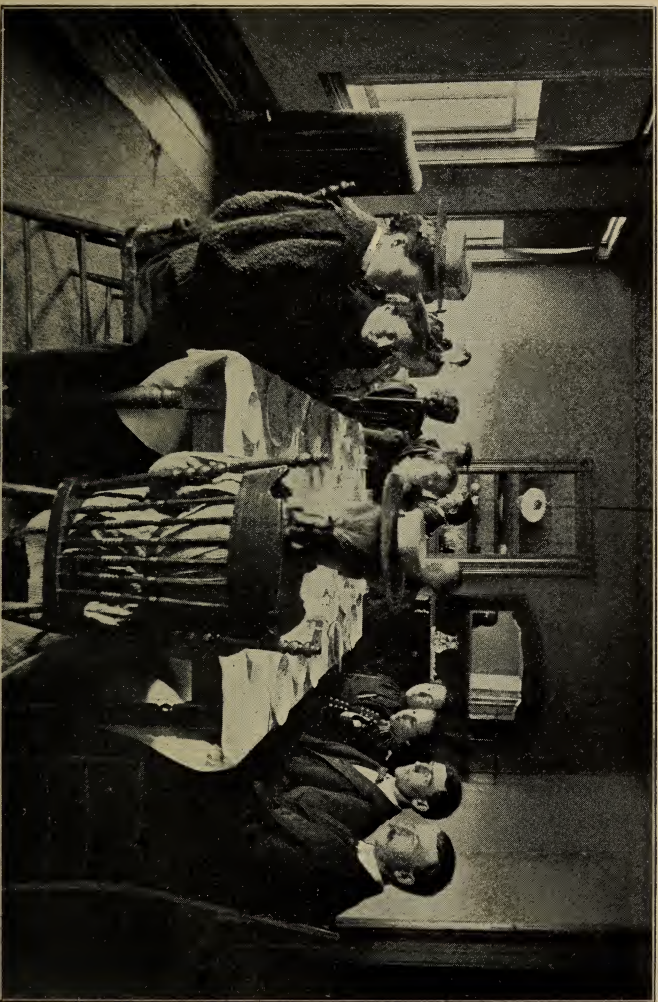
The following courses are offered:

FALL TERM.

I **Arithmetic**, a 5.

8:30-9:30. R. 34, C.

Pre. Arithmetic to fractions.



MODEL DINING ROOM.

- a, Fractions, decimals, denominate numbers, literal quantities and proportion.

Bailey's Comprehensive Arithmetic.

- 2 English**, a 5. 9:30-10:30. R. 35, C.

Pre. A fair knowledge of Elementary Grammar.

- a, Technical Grammar.

Maxwell's Advanced Lessons.

- 3 U. S. History**, a 5. 2:00-3:00. R. 35, C.

- a, A brief survey of the principal historic events from the discovery to the beginning of the 19th century.

McMaster's School History to chapter XIX.

- 4 Book-keeping**, a 3. 10:30-11:30. R. 31, C.

- a, Single and double entry sets in actual business.

Benton's High School Edition.

Military or Physical Culture.

WINTER TERM.

- 5 Arithmetic**, a 5. 8:30-9:30. R. 35, C.

Pre. 1.

- a, Percentage, interest, involution, evolution and mensuration.

Bailey's Comprehensive Arithmetic completed.

- 6 English**, a 5. 9:30-10:30. R. 35, C.

Pre. 2.

- a, Continuation of course 2.

Maxwell's Advanced Lessons.

- 7 U. S. History**, a 5. 2:00-3:00. R. 35, C.

Pre. 3.

- a, The leading events in U. S. History from beginning of 19th century to present time.

McMaster's School History completed.

8 Book-keeping, a 3, 3:00-4:00. R. 31, C.
Pre. 4.

a, Continuation of course 4.
Benton's High School Edition.

9 Civil Government, a 3. 10:30-11:30. R. 35, C.
Pre. 3 & 7.

a, An elementary study of civil institutions, local, state and federal. The township, the school district, the incorporated town, the city and county, historic origin, mode of organization, officers and functions. The state, with special study of the constitution of South Dakota. The nation, branches of government, powers of congress, the relation of the states, careful study of the constitution. Recitations, readings and occasional reports.

McCleary's Studies in Civics.

SPRING TERM.

10 Elementary Physiology, a 5. 8:30-9:30. R. 100, S.

a, The anatomy of chief structures of the human body and their physiology.

Martin's Human body (briefer course).

11 English, a 5 9:30-10:30. R. 35, C.
Pre. 2 & 6.

a, Continuation of course 6.
Maxwell's Advanced Book completed.

12 Physical Geography, a 5. 10:30-11:30. R. 35, C.

a, Physiography of the U. S., introduction to Gl. 1.

Tarr's Physical Geography.

13 Elocution, a 3. & Reviews, a 2. 3:00-4:00. R. 35, C.

a, This course will aim to emphasize the importance of intelligent reading, correct spelling and legible writing, also such other reviews of elementary branches as may be found needful. Lectures.

Military or Physical Culture.

Calendar for 1899-1900.

1899. FALL TERM TWELVE WEEKS.
September 25-26—Examination and Registration.
September 27—Work of Fall Term Begins.
September 30—Faculty Reception to Students in the Evening.
October 4—President's Annual Address to Students.
November 23—Thanksgiving Holiday.
December 20—Fall Term Closes and Graduation Exercises in
the Evening.

1900 WINTER TERM TWELVE WEEKS.
January 2—Entrance Examination and Registration.
January 3—Work of Winter Term Begins.
January 6—Faculty Reception to Students in the Evening.
January 22—Holiday except attendance at chapel.
March 28—Winter Term closes.

 SPRING TERM TWELVE WEEKS.
April 2-3—Registration for Spring Term.
April 4—Work of Spring Term Begins.
May 30—Holiday Except Attendance Upon Memorial Chapel.
June 27—Spring Term Closes.
June 28—10:30 a. m., Commencement Exercises, 9:00 p. m.,
Faculty Reception to Students and Friends.
September 26—Fall Term of 1900 Begins.
December 19—Fall Term Closes.

Calendar of Short Courses in 1900.

January 3 to March 28—Course in Dairy Science.
January 3 to March 28—Course in Practical Agriculture.
January 3 to March 28—Nurserymen's Course in Horticulture.
January 3 to June 28—Practical Steam Engineering.

REMARK.—In the schedule of studies no work has been assigned to Saturdays. The laboratories and library will however, be open then as much as practicable.



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